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Medical and Surgical JOURNAL

OFFICIAL ORGAN of THE MASSACHUSETTS MEDICAL SOCIETY and of THE NEW ENGLAND SURGICAL SOCIETY

$5 per Annum, 15c per copy
Vol. CLXXXIII, No. 2

THURSDAY, JULY 8, 1920

Published weekly in Boston, at 126 Massachusetts Avenue

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Miscellany.

RESUMÉ OF COMMUNICABLE DISEASES IN MASSACHUSETTS DURING MARCH.

General Prevalence. During March the incidence of communicable disease in the state was practically the same as in February, excluding influenza and lobar pneumonia cases.

A total of 11,816 cases was reported, of which 2,214 were cases of influenza. By the end of the month the influenza epidemic had definitely disappeared after extending over a period of ten weeks.

Chickenpox. Only 374 cases of chickenpox were reported, or 600 fewer cases than the January total for this disease. Most of the adult cases were carefully investigated to be sure they were not mild smallpox cases.

Diphtheria. A total of 559 cases was reported, or 81 less than the previous month. The campaign against this disease since 1918 has resulted in a more rigid control of this disease, and a consequent lowering of the incidence of the disease. The totals for February and March were lower than for any year since 1914.

Dog Bite. There were no dog bite cases reported during March. In January and February the increase in the number of animal rabies cases, combined with an increase in human dog bite cases, caused many communities to place a restraining quarantine on dogs. The quarantine apparently has had the desired effect for there was a decrease in animal rabies cases also during the month.

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Influenza. The end of the epidemic came the last of the month, when there were 147 cases of influenza reported whereas 1,144 cases were reported during the first week. There was a monthly total of 2,214 cases, a great decrease since February, when 28,349 cases were reported.

Measles. This disease had its low point in 1919 following the sextennial high point in 1918. This year is showing a reaction, the incidence of the disease for March being approximately the average for the past five years.

(Continued on page vi.)

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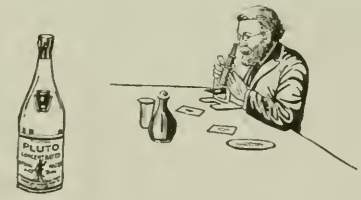

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(Continued from page iv.)

Pneumonia, Lobar. There were only 600 cases reported compared with 1,799 cases in February. Although the influenza epidemic was responsible for the high total in February, the March total is about the normal incidence of the disease.

Scarlet Fever. With 1,223 cases reported in March, there were 144 more than in February. It indicates that the population group susceptible to the disease is sufficiently large to furnish material for an epidemic unless health officers are constantly alert to the danger of this disease. Prompt action in isolating cases and quarantining contacts will check the spread of this disease.

Typhoid Fever. Thirty-three cases of typhoid fever, combined with the cases reported in January and February, makes a total of only 117 cases for the first quarter, the lowest in the history of Massachusetts. Of the 33 March cases, three were infected by contact with a clinical case, one was infected outside the state, no source of infection was found in 19 cases, and no epidemiological information is on hand for 10 cases.

Whooping Cough. Every other year is a "high incidence year" in whooping cough. There were 1,142 cases reported in March, and when it is realized that last year there were three times as many deaths from this disease than from typhoid fever in Massachusetts, the seriousness of the problem is apparent.

RARE DISEASES.

Anterior Poliomyelitis was reported from Boston, 1; Lawrence, 1; Leominster, 1; Newton, 1; total, 4.

Anthrax was reported from Chelsea, 1.

Dysentery was reported from Newton, 1.

Epidemic Cerebrospinal Meningitis was reported from Boston, 6; Brockton, 1; Fall River, 1; Hudson, 1; Lawrence, 1; Lowell, 3; Lynn, 2; New Bedford, 3; Peabody, 1; Plymouth, 1; Spencer, 1; total, 21.

Malaria was reported from Winthrop, 1.

Septic Sore Throat was reported from Attleboro, 1; Boston, 4; Newburyport, 1; Newton, 1; Peabody, 1; Winthrop, 1; total, 9.

Trachoma was reported from Athol, 1; Boston, 3; Fairhaven, 4; Fall River, 1; Holyoke, 1; Lowell, 1; Montague, 1; Uxbridge, 1; total, 13.

(Continued on page viii.)

CLINICAL CHART OF RENAL DISEASES
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RESUMÉ OF COMMUNICABLE DISEASES IN MASSACHUSETTS DURING APRIL.

THERE was a total of 10,594 cases of disease reported to the State Department of Health during the month of April, a decrease compared with the March total of 11,816 cases. Of the major diseases, diphtheria and lobar pneumonia showed an appreciable decrease in cases; but measles, scarlet fever, and typhoid showed an increase in number of reported cases when compared with the preceding month. The increase in these respiratory infections was probably due in part to the disappearance of the snow together with the irritation and minute abrasions caused by dust, thus affording a method of infection.

Diphtheria has shown a steady decrease since the high point of the disease was reached in December, 1919. The incidence of this disease is the lowest since 1914. There were 471 cases reported during the month. There were 10 cases of dog-bite reported, seven of which were bitten by a dog in Grafton; two were reported from Lowell and one from Taunton. The reporting of rabies after the absence of the disease for a period of time indicates the need of great care in carrying out preventive methods against the disease and the necessity for administering anti-rabic treatment to prevent human cases.

A marked increase occurred in the cases of measles reported compared with the incidence of the disease in March. There were 4,151 cases in April, or 1,140 cases more than the preceding month. There were 387 cases of lobar pneumonia, a smaller number than the March total; for some unknown reason, however, the cases reported increased during the last two weeks of the month. As in the case of measles, an increase occurred in the cases of scarlet fever. There were 1,357 cases of scarlet fever reported during April as compared with 1,223 reported during March. Forty-six cases of typhoid were reported during the month, an increase of 13 cases over the March total. There were 1,088 cases of whooping cough, 54 less than during the preceding month.

Of the rare diseases, the following report was made during April: Anterior poliomyelitis,

(Continued on page x.)

Many Patients Are Cooked Into Bad Health

Improperly-prepared, imperfectly-assimilated, incompletely-oxydized food may produce dyspepsia, gastric ulcer, rheumatism, tuberculosis and wasting diseases, neurasthenia, anemia and blood impoverishment—and protracted convalescence; while sub-vitality and increased susceptibility to all forms of infection may have their origin in the frying pan and the cook pot.

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General Executive Committee.

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Amherst, 1; anthrax, Lawrence, 1; dog-bite, Grafton 7; Lowell, 2, and Taunton, 1; epidemic cerebrospinal meningitis, Boston, 2; Concord, 1; Haverhill, 1; Lawrence, 1; Lynn, 2; New Bedford, 3; Revere, 1; malaria, Fitchburg, 1; Lynn, 1; pellagra, Boston, 1; septic sore throat, Boston, 5; Clinton, 1; Dedham, 1; Lancaster, 1; New Bedford, 1; Salem, 1; Saugus, 1; tetanus, Boston, 1; Fall River, 1; North Adams, 1; trachoma, Boston, 4; Somerville, 1; trichinosis, Boston, 1; Westfield, 1.

ELECTION OF PROFESSOR JAMES THOMAS WILSON.—Announcement has been made that Professor James Thomas Wilson has been appointed Professor of Anatomy in Cambridge University, to succeed the late Professor Macalister. Professor Wilson was born in Dumfrieshire and received his education at the University of Edinburgh, where for some time he acted as a demonstrator of anatomy. He left Edinburgh in 1900 on being appointed to the Challis Chair of Anatomy in the University of Sydney. In 1909 he was elected to the Fellowship of the Royal Society.

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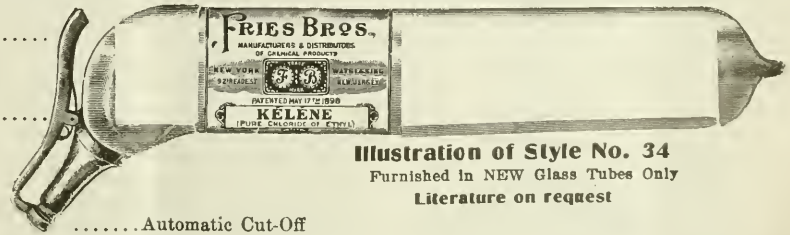

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PROSTATECTOMY.*

By Henry G. Bugbee, M.D., F.A.C.S., New York,

Urologist to St. Luke's, Woman's, and Lying-In Hospitals.

Any surgical procedure of import passes through three stages in its development: *First*, the recognition of a pathological condition, and preliminary crude attempts at its relief. Such early endeavors are based upon imperfect data, and while they represent pioneer work, the results are so irregular that criticism retards the progress of development. If, however, there is an underlying truth and justice in the procedures, the development passes on to the *second* stage, namely, that of widespread experimentation, the discovery of a pathological entity, the presentation of numerous operative procedures, some good, some bad, with varying results, fluctuation of opinion causing first a return to palliative measures then to the more radical, but always with a trend forward, with increasingly better results, and the ultimate formation of a fundamental surgical foundation. This leads to the *third* stage of crystallization, definitely placing the operative procedure in the realm of surgery, where it will stand as a logical and sound method of relief, to be modified from time to time, but remaining essentially the same in principle.

Where in surgery is there a more perfect example of these steps in surgical development than in that of the operative relief of prostatic obstruction of the vesical neck? It is doubtful if any other surgical procedure will ever have such an interesting and striking history in its development, for the progress in the treatment of this class of cases has accompanied and possibly has largely accounted for the placing of urology upon a definite footing as a special branch of surgery, lifting it out of the realm of venereal diseases. I would not minimize the accompanying era in the development of kidney surgery, for the two go hand in hand, but the prostate was the old dividing line between venereal and general surgery. The dividing line has been removed, and urology stands today as a highly specialized branch of surgery.

Unquestionably diagnosis is responsible. The possibility of studying the urinary tract as an entity and its relation to the human organism gave the true light to vesical obstruction, and made the second stage of its surgical development possible.

It seems to me we are now in the third

* Presented, by invitation, before the New England Urological Society, January 28, 1920.

UNIVERSITY OF
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stage of development in prostatic surgery, namely, that of crystallization. Out of these two periods of progress, out of this mass of pathological and clinical study, operative procedures formulated, and results published, what are our present-day conclusions, and how shall these cases best be handled?

To logically lead up to this present-day period, I would like to go over briefly the preceding stages. There can be no clear-cut division of time covered by these stages of development. In this case, as in the development of any method of treatment, there has been the carrying forward from one era to the next of certain lines of effort. However, for purposes of convenience, the first stage may be considered to include the period which brings us to the real study of the anatomy and physiology of the prostate, namely, the latter half of the eighteenth and the early part of the nineteenth centuries, and the period covered from this time to the invention of the cystoscope, by Nitze of Dresden, in 1879. The second stage covers the period from 1879 to 1900 (for arbitrary purposes). The third and last stage embraces the years of crystallization following the introduction of suprapubic prostatectomy, bringing us to the present time.

It is manifestly impossible, and likewise unnecessary, in an article of this character, to give in detail an account of the evolution of prostatic surgery, since this ground has been covered so ably by so many writers, notably, of recent years, by Deaver.[1] Nor need an attempt be made to give an exhaustive bibliography, selected from the thousands of contributions on the subject. I shall attempt merely to sketch, as briefly as possible, the chief steps in the progress toward our present status, with no claim to originality of statement, and with due credit to my predecessors and colleagues who have made exhaustive researches concerning and contributions to the history of prostatic surgery.

First Stage.

The biblical allusion to hypertrophy of the prostate, to which Sir Everard Home[2] directs attention, can hardly be considered as indicating any recognition on the part of the practitioners of the healing art of the time of the Ecclesiastes. While the two chief effects of prostatic enlargement may be conceded to be poetically described (Ecclesiastes, Chapter XII, Verse 6), involuntary passage of urine as "the pitcher broken at the fountain," and complete stoppage as "the wheel broken at the cistern," there is no reason for believing that any true conception existed of the cause of these manifestations or accompaniments of old age. Indeed, it appears that Herophilus (235-280 B. C.), who first gave a name to these obstructing elements which suggested their location, mistook the "prostate glandulosae" for the seminal vesicles.

This error is generally attributed to lack of knowledge of human anatomy, due to the forbidding of dissection, and to the acceptance of the relationships found in lower animals as applicable to man. The prostate, according to Todd,[3] is very constant in existence, being found in all orders of mammalia excepting, perhaps, the greater number of rodentia, the mole and the hedgehog. It varies from the human prostate in both external and internal conformation, being bifid, for example, in some animals, thus resembling the seminal vesicles in the human. This mistake is found in books on animals of much later date. Sir T. Browne,[4] for example, in 1646, says "An horse or bull may generate after castration, that is, from the stock . . . . of seminal matter already prepared and stored up in the prostates or glandules of generation." Nearly a century later still, W. Gibson[5] says of the horse, "There are several glandular bodies situated . . . . immediately before the seed bladders, and are therefore called prostates."

The real discovery of the prostate seems to have been made by a Venetian physician, Nicolo Massa, who died in 1563. Nearly a century elapsed before this discovery was associated with "the pitcher broken at the fountain," or "the wheel broken at the cistern." In 1649, Riolanus,[6] the contemporary and antagonist of Harvey, suggested that the swelling of the prostate might cause obstruction of the bladder. There seems to be no proof, however, that this suggestion led him to incise the neck of the bladder, through the perineum, for the relief of urinary retention, which he did successfully in several cases. Nor is it established that the retention, in these cases, was due to hypertrophy of the prostate. It seems fair to assume, however, that the suggestion of Riolanus marked the beginning of operative measures for the relief of urinary symptoms caused by enlargement of the prostate, though it has been suggested by Ricketts[7] that the father of

lithotomy, Ammonius Lithotomus, an Egyptian surgeon of Alexandria, who lived about the time of Hippocrates (B.C. 460-357), really made the first move in the direction leading to the discovery of the prostate. Undoubtedly, the widely practised procedure of perineal lithotomy may be credited with a large share in this early stage of the evolutionary process which has culminated in the prostatic surgery of today.

It goes without saying that little real progress could be made toward a rational understanding or explanation of the suggested obstructive action of the prostate until this body itself,—its structure and its relationships,—had been more definitely determined and described. The work, therefore, of Morgagni[8] (1760), Hunter[9] (1788), Baillie[10] (1793), Home[2] (1805+), and others who cleared up the anatomy of the gland, may be considered as having given a very vital impetus to the development of prostatic surgery. In the years which followed, many surgical procedures were suggested and tried out for the relief of symptoms by that time well recognized as emanating from a pathological condition of the prostate.

Tunneling. Barring the brief reference to the incision of the neck of the bladder through the perineum by Riolanus, the first procedure for the relief of retention caused by the enlarged prostate seems to have been the tunneling operation. It is recorded by Chopart[11] that Astruc, who died in 1766, suffered from retention of urine, which was relieved by his attendant who, in attempting to pass a catheter, met an obstruction, which he proceeded to perforate by means of a lance-shaped stylet introduced through a catheter having an open end. The urine was drawn off and the catheter left in place for fifteen days. During the remaining ten years of Astruc's life the catheter was introduced, when necessary, through this passage, which persisted. This, it will be seen, was an emergency measure, not based on a knowledge of the anatomy of the parts.

Sir Everard Home,[2] who credits himself with having discovered and described the middle lobe of the prostate, and who described the gland in 1806, advocated and practiced the tunneling of the obstructing gland by means of a catheter. John Hunter,[9] in 1853, reports having followed this method, and Chopart,[11] in the same year, followed this procedure, with fatal results, in several cases. It is interesting to note the tenacity with which surgeons held to such a dangerous procedure as tunneling. Brodie,[12] in 1865, employed the method, and Bilroth,[13] in 1881, resorted to it in one fatal case. Many others, meanwhile, followed the lead of the pioneer in this hazardous path.

Compression. While not, strictly speaking, a surgical method, the systematic compression for the purpose of maintaining a patulous urethra may be mentioned as one of the early efforts at relief, or rather prevention, of urinary retention caused by prostatic enlargement. Physick,[14] of Philadelphia, is credited with having conceived and employed this idea in the early part of the 19th century. He introduced an elastic hollow tube through the compressed prostatic urethra, and then distended the urethra by means of fluid pressure. The operation was repeated every two or three days, the pressure being maintained for from five to fifteen minutes, or as long as the patient could endure it, for it was by no means a painless procedure. Leroy d'Etoilles[15] (1846), and Mercier[16] (1856), made use of compression with a view to reducing the size of the prostate or moulding its growth, their idea being to overcome the natural subpubic curve of the urethra. They used a flexible catheter, through which they introduced a straight stylet. The method was so painful that it failed to meet with general acceptance. And yet, in 1881, we find Harrison[17] advocating systematic compression, for the application of which he devised various olivary bougies.

Prostatotomy. The first real step in the direction of rational surgical procedure comes within this period, though some earlier operations are held by some to be the progenitors of the later procedures of this character. Perineal lithotomy, or perineal cystotomy for the removal of a "hard mass," however, are not generally regarded as definite steps, of intentional nature, in the evolution of prostatic surgery. The same may be said of suprapubic cystotomy, first practised by Rossetus in 1590, and described, more than two hundred years later, by Amussat[18] as having been performed by him for the removal of a calculus and a protruding mass of prostate; and likewise of perineal prostatotomy combined with lithotomy, practised by Sir William Fergusson[19] about 1848.

Urethral prostatotomy, however, as practised

by Guthrie,[20] in 1834, for the "division of the bar at the neck of the bladder," may be considered a definite surgical procedure which advanced by so much the evolution of the surgical treatment of prostatic obstruction. He used a concealed blade introduced through a catheter. Three years later Mercier[16] devised the "prostatome" and "prostatectome" for the urethral prostatotomy, and Civiale and Leroy d'Etoilles, in 1846, invented other instruments, all three claiming priority and forgetting or ignoring Guthrie, the originator of urethral prostatotomy. The method, however, is generally known as Mercier's method, and modifications of the procedure are called modifications of the Mercier method.

The galvano-cautery method of Bottini,[21] introduced about 1873, but little known outside of Italy until attention was directed to it by Freudenberg,[22] in 1897, was in reality a modification of the original Guthrie urethral prostatotomy, known as Mercier's method. The many modifications of the Bottini method which followed, and the enormous literature of advocacy and deprecation, are familiar to all, and need not be recounted here. Generally speaking, all these procedures served their turn in advancing the development of prostatic surgery, and have taken their place among the past issues, except when indicated for some special reason. This includes the application of the Bottini galvano-cautery method through a perineal wound, as advocated by Belfield,[23] in 1886, and followed by many operators, and its application through a suprapubic opening, as practised by Watson,[24] Bangs,[25] and others.

Prostatotomy, with its various modifications, forms an excellent illustration of the overlapping of the stages of development, previously mentioned. The earlier advocates of this procedure, including Bottini, were not aided by the cystoscope in their efforts. Those who employed the Bottini method and its various modifications, following the lead of Freudenberg, were more fortunate in this regard.

Injection. During this stage of development various attempts were made to cause shrinkage or atrophy of the enlarged portion of the prostate through the injection of various substances. Thus Heine,[26] in 1874, injected iodine into the gland, while Langenbeck[27] and Iversen[28] injected ergotine subcutaneously. The procedure was not generally adopted, since it was found that suppuration and even death might follow.

The surgical attempts of this stage may be summed up in the following statement made by W. J. Mayo[29] in 1889: "Much ingenuity has been expended in contriving instruments for attack upon the prostate by the urethra; these operations are blind, consequently unsurgical, and lack the essential element of drainage. Mercier's method and instruments are best known. As usual, electricity with its occult power has been called to aid the solution of the problem. The most that can be said in its favor is that it pays—the physician. Parenchymatous injection into the gland of iodine, iodoform, ergot, etc., has been frequently tried, but it is difficult to separate the actual benefit of such practice from other measures of relief used."

Second Stage. This stage, the period of development and progress, marks the application of diagnostic methods which established urology as a specialty. The bladder neck was carefully studied intravesically, and all the perfections of modern surgical technic were applied to surgical procedures upon the prostate, with a broadening of the field and with increasingly satisfactory results.

As is always true, during this period of development of our surgical procedures many incompetent surgeons entered the field. Efforts to gain precedence resulted in poorly conceived and poorly executed technic, with corresponding periods of retardation, but with the slow elimination of the undesirable and the selection of the good. With keener observations from the pathological and clinical standpoints, with the development of better operators and more reliable reports, the progress was toward the present establishment of a surgical entity.

The use of the cystoscope was of great value in differentiating prostatic obstruction from other vesical lesions and in studying the intravesical aspect of the prostate, leading to a more careful classification of types of obstruction, with the development of operative procedures suitable to the type presented. The question of kidney elimination resulted in the study of this element, and a more intelligent analysis of the patient's general condition, too, was made.

Many of the methods to which attention was directed during the second stage of development were not new, having been employed, in

some instances, for many years, or having undergone various deaths and revivals in modified form.

Cystotomy, Perineal and Suprapubic. Urinary Fistula. It has already been pointed out that the cystotomy, perineal and suprapubic, had long been called into requisition, as a purely emergency measure or otherwise, when it became necessary to establish drainage of the bladder. The recrudescence of these measures finally led to the making of a urinary fistula, which, with the concomitant drainage of the bladder, was pronounced[1] a distinct advance in therapeusis. Like cystotomy, the fistula operation had undergone various revivals when Hunter McGuire[30] (in 1888) devised his "teapot" operation, making a low opening into the bladder sutured to the highest point in the external incision, the fistulous tract bearing the same relation to the bladder that the spout does to the teapot. In 1899, Poncet and Dolore,[31] made an exhaustive study of the application of suprapubic fistula in the treatment of prostatic enlargement. Harrison,[32] beginning in 1881, advocated and practised the perineal method of establishing a urinary fistula.

Castration, Vasectomy, Etc. It appears that in the eighties it occurred to various operators, —and the suggestion was put into practice in sporadic cases,—to resort to castration for the purpose of relieving symptoms caused by hypertrophy of the prostate. White[33] and Ramm,[34] the former in June and the latter in September, 1893, advocated the procedure, thus inaugurating a widespread vogue of operations involving castration and various measures dealing with the spermatic cord. Doubtless all of these operators based their efforts on the findings of John Hunter[9] who, more than fifty years before White and Ramm popularized the procedure, had found that castration in young animals checked the development of the prostate, while in the fully grown animal it caused atrophy of the gland. The high mortality resulting from castration caused Mears[35] to suggest vasectomy. These castration operations were of only temporary popularity, and made way for the more rational procedures which have persisted to the present time.

Miscellaneous Surgical Procedures. During this stage of development various other surgical procedures were suggested and tried out, all having in view the atrophy of the enlarged prostate. Ligation of the iliac arteries, removal of the vesico-venous plexus, and tenotomy of the levator of the prostate, were among the methods employed and eventually abandoned.

Prostatectomy, Perineal and Suprapubic. These procedures, like others in the sequence, overlap in their development, their history taking us back into the first stage, and carrying us forward into the third.

The question asked by Gibbs,[36] in 1857, is thought to have foreshadowed perineal prostatectomy: "Can not enlargement of the middle lobe of the prostate gland be removed by the lateral operation of lithotomy?" At any rate, nine years later Küchler[37] employed perineal prostatectomy in a case of malignant disease of the prostate. The procedure was employed in sequence by Bilroth,[13] Demarquay,[38] Langenbeck,[27] Spanton,[39] Leisrink,[40] Watson,[24] and others, so that it soon came to be employed for the complete as well as for the partial removal of the prostate, and for benign as well as malignant conditions. The literature of the last ten or fifteen years of the nineteenth century includes the names of many prominent surgeons, in this country and abroad, who advocated and practised perineal prostatectomy, thus adding to the perfection of the method.

Suprapubic prostatectomy, first performed by McGill,[41] in 1888, like the perineal method, was first employed in cases of malignant disease, and was at first a partial prostatectomy. Like its predecessor, too, it was variously modified by the different operators who adopted it.

Then followed the combined perineal and suprapubic procedure practised by Fuller[42] in 1892, also variously modified.

This particular period of the development of the surgical treatment of prostatic obstruction furnishes a chapter of surgical history which is enlivened by charges and countercharges in the matter of priority, pretty nearly each item of the technic being the subject of dispute. All this, however, rather strengthened than weakened the position of prostatectomy in the surgical field, the method, by whichever route performed, being destined to play the leading rôle in prostatic surgery to the present time.

Third Stage. The opening of the twentieth century found us possessed of the full anatomical knowledge of the prostate, well on the way toward a more perfect understanding of its pathological possibilities, and in command of all the surgical methods of treatment which the

past had brought to us in a fair state of development. Prostatectomy, by one method or another, had so nearly supplanted the other surgical procedures, and was being so widely practised, that McGowan,[43] in 1907, sounded the following note of warning: "The difficulties of the operation have been so minimized, the benefits in many cases so magnified, and imperfect results so glossed over or concealed, by writers of known operative skill, that many who have only a very uncertain idea of the anatomy of the urogenital organs are emboldened to commence operations which they never finish, and the necessity for which is often only problematical. So much bad work of this nature is being done that this very beneficent operation may easily fall into disrepute." Fortunately, this consummation did not ensue. Bad work continued, and continues, to be done, in this field as in all others. But the process of crystallization proceeded, with a steadiness made steadier by the ever increasing knowledge of pathology, the constantly improving methods of diagnosis, and the progressively developing refinement of technic.

Now, after twenty years of this crystallization process, where do we stand today regarding the removal of prostatic obstruction of the vesical neck?

Classification of Cases. Inasmuch as the majority of the cases observed fall within the realm of surgery, meaning, at this stage of development, the removal of the gland insofar as possible, the title of the paper has been made prostatectomy.

Anatomical studies show that the prostate gland develops from fine epithelial outgrowths from the posterior urethra, each outgrowth forming a lobe of the gland, *i.e.*, an anterior, two lateral, a median, and a posterior. The anterior lobe generally atrophies, and the posterior lobe is separated from the median and lateral lobes by a layer of connective tissue which surrounds the ejaculatory ducts.

Hypertrophy of the gland begins most often in the middle lobe and involves both middle and lateral lobes. That hypertrophy always begins in the middle lobe is not borne out by observation, for we have all seen lateral lobe enlargements which we have removed, finding no trace of middle lobe involvement.

The frequency with which we remove middle and lateral lobes in one piece indicates a tumor formation, with flattening and atrophy of the surrounding prostatic tissue into a capsule, so that technically the term prostatectomy is not correct, as the entire gland is not removed.* I feel, however, that this term should be used as indicating the removal of the fibro-adenomatous mass, immediately differentiating this class of cases from the fibrous prostate and carcinoma.

Judd,[44] in maintaining that prostatectomy is incorrect in the sense of removing the gland, has demonstrated many times that the tissue left behind, and which forms the so-called capsule, is prostatic tissue. The enlargement which is removed in performing the operation is enucleated from the gland in much the same manner that an adenoma is removed from the thyroid or a fibroid tumor from the uterus. While the lesion apparently begins in the so-called median or lateral lobe, he believes that most often the enlargement itself occurs as a single lesion and is not divided into lobes. At least it is certain, he says, that in the transvesical enucleation it will usually be removed in one piece.

In a second group of cases there is a fibrosis of the gland in which the fibro-muscular elements predominate, obliterating the glandular element. In this group of cases a hard, rigid, fibrous ring surrounds the vesical neck. Various gradations will be noted between this class of cases and those included in group four, mentioned later.

A third group includes carcinoma of the prostate, which is usually primary. Carcinoma begins in nearly every case in the posterior lobe, which is not involved in hypertrophy, extends toward the base of the prostate, involves the seminal vesicles, and intervesicular plateau. The lateral and middle lobes become involved early, but posterior extension is retarded by the fascia of Denonvilliers.

In still another group of cases the type of vesical obstruction encountered is due to muscular hypertrophy, hypertrophied mucous membrane usually resulting from chronic inflammation, hypertrophy of the subcervical group of glands or slight middle lobe enlargement, all of which cause an elevation of the vesical outlet, often a bar formation, with no actual change in the prostate.

Infection without hypertrophy and infection with prostatic calculi may in some cases warrant prostatectomy. As stated before, the ma-

* B. Merrill Ricketts of Cincinnati, in 1902, removed the prostate gland, in its entirety, including the capsule, through a transverse perineal incision in two emergency cases.

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jority of cases presented fall into the first group, *i.e.*, fibro-adenomatous hypertrophy.

Diagnosis. The first and most important step in the handling of a prostatic case is unquestionably the diagnosis of the lesion. This cannot often be made at one examination. These patients most frequently come to us during an exacerbation of an old chronic condition. How long the obstruction has been present, it is often difficult to ascertain, the symptoms are so insidious that they are unrecognized by the patient, the progress is so slow that the advance is not noted until frequency, urgency, failing stream, and often retention, bring the patient to the urologist with the family physician.

The immediate indication is to relieve the urgent symptoms,—and this requires excellent judgment. To suddenly destroy the kidney balance which has been slowly established is a serious problem, and a complete analysis of the situation at once is obviously inconsistent. It is my belief that a patient should be prepared for this examination by slowly relieving the pressure, increasing elimination from the bowels, regulating the diet, and employing urinary antiseptics. When the local and vesical congestion has been sufficiently reduced, a cystoscopic examination is made. The intravesical surface of the prostate, as well as the bladder, should be studied in every case where it is possible to pass an instrument. In this regard I would differ from Braasch,[46] who gives a limited number of indications for the examination. The information gained by the cystoscope is out of all proportion to the possible traumatism which may be inflicted, and the latter should be slight if the above method is followed, and a small instrument (18 F.) is used. Elevating the beak of the cystoscope in its passage by means of a finger in the rectum will often avoid laceration of the mucous membrane over the middle lobe. Delicate manipulation is essential. The presence of stone, foreign body, diverticulum, muscular hypertrophy, inflammation, nerve lesion, and new growth as a concomitant of the prostatic lesion, or as the cause of symptoms, may be discovered. The topography of the prostate is thus studied. Rectal palpation with the bladder empty is essential, and palpation with the cystoscope in position gives a very definite idea of the amount of intervening tissue.

The patient as an individual must be studied,—his medical history, habits, environment, general physical examination, and lastly, his urological condition, must be taken into account in order to give him his just due. When we hear of prostatectomies being arranged for and dates set for operation before the patient is seen, we wonder where the patient comes in.

I was impressed with a recent paper by one of your members, Dr. Quinby, of Boston, on Standardization in Prostatectomy.[48] There is much of value in this excellent contribution which will be useful to the urologist. At the same time we must guard against a tendency to place patients in certain classes, with respect to treatment, which often means an absorption of the personal element into group handling. There must be a classification of cases based on pathology, but the pathology must be general as well as of the local condition. There must be variation in treatment just as there are variations in individuals.

Treatment. Prostatic obstruction is mechanical, in a large majority of cases, progressive, and even under supervision, recurrent. Permanent relief must be attained by a removal of the obstruction. Obstruction to the outflow of urine means retention of toxic products in the body and their absorption; interference with the function of important organs of elimination, the kidneys, and the retention of toxins in the circulation. In the destruction of such a balance, which has been built up slowly, the results are quite as serious as in cardiac decompensation.

How can relief of this condition be accomplished with the least danger to the patient? The diagnosis has been established; stone, tumor, and nerve lesions have been eliminated; the physical condition of the patient reveals no absolute contraindication to operative interference; or reveals a condition which, although contraindicative at the time, is one which will probably become so much improved by relief of absorption from bladder and retention from kidney insufficiency that a complete removal of the obstruction will later be justifiable. The next step is to increase elimination by improving the drainage of the urinary tract.

(To be continued.)

Bequests to Hospitals.—The will of the late William F. Armstrong of New York bequeathed $25,000 each to the Methodist Episcopal Hospital of Brooklyn and the General Hospital Society of Connecticut, and $10,000 to the Bridgeport, Connecticut, Hospital.

Medical Progress.

PROGRESS IN SURGERY.

By E. H. Risley, M.D., Boston.

DETACHED OMENTAL GRAFTS.

Finton and Put undertook experimental work to determine the fate of detached omental grafts in intestinal surgery. They refer to the work of Freeman, Davis, and others who have used largely attached omentum. The authors find that the free graft has distinct advantages over the attached graft. The piece removed should be on the free border of the great omentum; the latter should not be greatly puckered and cut edges should be covered. The graft must be thin, spread out carefully on the injured part, the cut edge rolled under and held in place by several fine silk sutures. In the absence of infection the graft survives at least six months very little changed. The indications for use are to replace lost portions of peritoneum to reinforce suture lines, to prevent adhesions, to check hemorrhage and to reinforce peritoneum in threatened perforations such as may occur in malignant disease.

NERVE FLAP OPERATIONS.

Strohey goes into great detail in the study of nerve injuries and their repair and pretty definitely demonstrates that the nerve flap as a means of bridging nerve defects is futile. By splitting or cutting a flap from the central portion of the nerve, a definite part of the down-coursing neuraxones are permanently destroyed. Flaps cut from the distal stump deprive the peripheral nerve of a definite portion of its conducting paths also. Experimentally and clinically, it has been shown that nerve flaps do not serve as conducting paths for the downward neuraxones. Nerve flaps, whether central or distal, become merely degenerated partial nerve segments; continuity and union of neuraxones does not take place at the point of suture. The author believes that the nerve flap method to bridge nerve defects should be discarded in peripheral nerve surgery.

Frazier also agrees with Strohey's view and suggests that implantation suture, which is somewhat similar to anastomosis, is a more feasible operation. He quotes Weir, who showed that a gap of from seven to eight cm. could often be made up by nerve stretching which, if carefully done, gives a minimum amount of trauma to the neuraxones. Transposition is another operation which has been found of greatest service. Nerve transplantation has been successfully used by Frazier in the following instances: The nerve sacrificed was the musculocutaneous of the leg and by this means a 7 cm. defect in the musculospiral, a 7 cm. defect in the brachial plexus, a 5 cm. defect in the ulnar, a 14 cm. defect in the ulnar, an 8 cm. defect in the external popliteal, an 8 cm. defect in the median, and a 5 cm. defect in the brachial plexus were bridged over.

The final decision on the superiority of one method over another cannot be written until the Peripheral Nerve Commission, acting under the direction of the Surgeon General, has made its report. It is hoped that much valuable information may be obtained from this report.

TREATMENT OF ACUTE EMPYEMA.

Aschner fairly well summarizes the present day opinion regarding the treatment of acute pyogenic empyema. This opinion is largely the result of the enormous amount of work done on this disease during the influenza epidemics coincident with and following the war. Minor intercostal thoracotomy is undoubtedly the operation of choice. With this operation the patient need not necessarily be removed from his bed; the entrance to the thoracic cavity is made under local anesthesia with blocking of the intercostal nerves. The procedure is preceded by aspiration to determine the lowest point for drainage. An air-tight wound is made by introducing a tube or catheter through a trochar opening. Cases may often be hastened in recovering by the use of Dakin's fluid and the suction pump. Further and further study of the acute cases convinces one of the logic of the intercostal procedure. It probably remains true, however, that for chronic cavities with adhesions rib resection is the operation of choice.

CARREL-DAKIN TREATMENT OF ACUTE APPENDICITIS

Rulison publishes a very interesting article on a new treatment of acute appendicitis. He states that severe pain and shock attend the introduction of Dakin fluid into the peritoneal cavity. The use of this antiseptic must, therefore, be restricted to the treatment of the drainage tracts after the period of walling off

has occurred. The injections are therefore not intraperitoneal, but intra-abdominal. The author further warns that the satisfactory establishment of a water-tight drainage tract seems to depend, as to its rapidity of formation, upon the type of infection. The structure of the drainage tract in certain severe infections may be very precarious even after a considerable interval. Even in milder infections a minimum of adventitious tissue is often present between adherent coils. Great caution as to time and manner of introducing the fluid is therefore necessary. Accidents involving the integrity of the intra-abdominal drainage tracts, with escape of Dakin fluid into the free peritoneal cavity are attended by grave danger, especially if infection be present. However, with proper precautions, less slough and less foul discharge result from the use of Dakin's fluid. A straight drainage tract is essential. The author has avoided attempting to Dakinize curved or tortuous sinuses as he feels that such attempts are decidedly fraught with danger. He describes and depicts his method in detail. The average time when suppuration ceased and wounds were entirely free of slough and lined with bright red granulations was 10.9 days. Secondary closure of the wound was attempted in five cases and was successful in three and failed in two. Duration of hospital stay in 18 cases was 24.1 days; perfect results, 75 per cent.; weak walls or hernia, 25 per cent.; deaths, 5.5 per cent.

A paper entitled "The Technic of Appendectomy" by Soresi seems to be one of the most valuable contributions to surgical literature for some time. The text is beautifully illustrated by excellent drawings and diagrams, all of which are very clear and much in point. Soresi shows that no matter how changeable are the shape, position, size and relation of the appendix, there is one point which is always fixed. This point is the implantation on the cecum or its base. Therefore in searching for the appendix, especially in the acute case, the surgeon should not look first for the tip, which will generally necessitate the breaking up of valuable protective adhesions, but he should locate the cecum and the base of the appendix, which is much easier and much less dangerous to do. Can the surgeon locate and remove the appendix without breaking the protective adhesions built by the peritoneum, and without spreading infection, no matter what are the condition and location of the appendix? The answer is "Yes," if the technic advocated, which is the opposite of the technic nowadays, is followed. This has, as its foundation, the advice to look for the base and not the tip of the organ, keep away from the peritoneal cavity, do not use protective pads, work always in the open, seeing exactly what you do and how you do it, knowing that it is exactly what you want to do and that it is done as you want it to be done. Soresi divides the right lower quadrant into safetyland and dangerland. Safetyland includes the two external thirds of the cecum with the base of the appendix. Dangerland includes the internal third of the cecum and the general peritoneal cavity. The author never uses the muscle splitting incision, but a generous linear pararectus incision, which brings one down directly over the cecum. When the peritoneum is reached it is freed from adhesions binding it to the cecum, but only on the external side. "We do not for any reason ever touch the external edge of the peritoneum, much less try to free it from any adhesions binding it to the cecum. We keep always outside of the border between safetyland and dangerland: raise up the peritoneum and apply a blunt retractor to the outer edge of the incision, close to its lower angle, and raise up the cecum with a soft sponge holder covered with rubber, applied to its lower external portion." The base of the appendix is surrounded by a purse string suture and severed between clamps and inverted, but the base not tied; for tying and inserting leaves a closed cavity which is very apt to be a source of future danger. It is considered safe to leave in a part of a tip which would be difficult or dangerous to remove, but never a part of the base, which would be a dangerous source of future infection. The author strongly condemns the usual abdominal wound cigarette or tube drainage, which does not really drain uphill or through the early occluded meshes of the gauze, but shows very clearly why stab-wound drainage at a dependent point in the flank by means of paraffin smeared strips of gauze makes the best possible drainage, leaving the abdominal wound to be closed tight, hence obviating the danger of infection here and later possible hernia.

This article is a distinct advance in the treatment of acute appendicitis.

LOCALIZATION OF BRAIN TUMORS.

A marked advance has been made recently in the localization and elimination of central tumors by ventriculography or injection of air into the ventricles and then taking of roentgenograms of the skull. Dandy, of Baltimore, has used this method in over seventy-five cases in Halsted's clinic in the past six months. To introduce air into the ventricles of an adult, it is of course necessary to make an opening in the skull. This can be done under either local or general anesthesia, the choice largely depending on the patient. The author prefers local anesthesia with a responsive patient. The procedure need be but slightly painful and after transferring the patient to the x-ray room his coöperation eliminates respiratory movements and allows of much better exposure. Moreover, a considerable danger of anesthesia is avoided during the time necessary to dress the wound and transfer the patient to the x-ray room. The ventriculogram will in many cases at once tell whether the tumor is central or cerebellar. When there is a difference in the size of the ventricles the tumor is usually on the side of the smallest ventricle. In infants and very young children, a puncture can be made through an open fontanelle or through sutures which have been separated by abnormal pressure. The author states that the so-called unlocalizable tumors comprise at present over half of the total number but by this method a large per cent. of them can be definitely localized. Hydrocephalus is easily demonstrated by ventriculography. Local change in size, shape and position of one or both ventricles, as shown by the ventriculograms will accurately localize most obscure tumors of either central hemispheres. To differentiate between central and cerebellar lesions is frequently one of the most difficult tasks in intracranial localization, but this method at once separates these two groups and indicates the operation of choice. The only cure for brain tumor is extirpation. The results in terms of complete cures of brain tumors will be in proportion to the early localizations which are made. A decompression is a purely palliative procedure and should be adopted only when the tumor cannot be located. Ventriculography permits of an early and accurate localization of the growth when all other methods fail. The method is also useful in precisely localizing the growth. This permits of an exploration directly over the tumor and greatly simplifies the operative procedure. Many useless and harmful operations should be spared the patient by the use of this procedure.

Society Report.

PROCEEDINGS OF THE NEW ENGLAND BRANCH OF THE AMERICAN UROLOGICAL ASSOCIATION.

THE thirty-third meeting of the Society was held on January 28, 1920, in the Warren Hotel in Worcester, at 7.45 P.M. The members of the Worcester District Medical Society were invited and a number of them were present. Dr. O'Neil presided. At the business meeting, the following men were elected to membership:

Dr. Walter D. Bieberbach, Worcester.
Dr. Ira N. Kilburn, Springfield.
Dr. Cyril I. Richards, Boston.
Dr. George A. Wilkins, Revere.

The scientific program consisted of demonstrations of specimens and reports of cases. The paper of the evening was by Dr. Henry G. Bugbee, of New York, on "Prostatectomy."

A report of the meeting follows:

DR. BARNEY: I have an interesting case to report briefly.

This is a specimen of a kidney which I removed from a woman 46 years of age. She entered the hospital on the medical service. Family history and past history negative except for slight hematuria five or six months ago. Since then there have been occasional attacks. About a month ago she began to have intense pain in the back, a sense of weakness, and night sweats. Frequency of urination, three or four times a day. No nocturia. She was running a moderate temperature. Examination showed an obese, rather sick looking woman with a markedly pendulous and fat abdomen. Owing to this abdominal examination was difficult, but an indefinite moderately large, tender and movable mass was felt in the left flank. X-ray showed no calculus. Cystoscopy showed a normal bladder and both ureters were easily catheterized. The left urine showed pus and colon bacilli; right urine negative. Bladder urine had shown a little blood. Pyelogram unsatisfactory owing to the large abdomen, but x-ray and clinical examination showed a high diaphragm on the left. Wassermann negative. We made a diagnosis of pyonephrosis due to colon infection. At operation there was an extensive perinephritic abscess, the kidney being pushed forward and evidently badly infected. As the patient was then in bad shape nothing further

was done at the time. Recovery from this operation was good. Ten days later I did a nephrectomy. Convalescence was good.

The kidney is of interest in that it shows various areas of hypernephroma. The rest of the organ is necrotic and sections show bacilli and cocci in the kidney tubules. It is a most unusual manifestation of a malignant disease of the kidney.

Dr. W. C. Quinby:

A Case of Long Standing Urinary Tuberculosis Resulting in Autonephrectomy with no Symptoms at the Level of the Kidney, but with Severe Bladder Involvement.

A woman, aged 42, single, bookkeeper, entered the Peter Bent Brigham Hospital 11-x-17, complaining of urgent, frequent urination. Family history negative; no tuberculosis in any member of the family. Past history: Has been very well in general, except that she is said to have had pneumonia at 11. During her adult life has had an attack of tonsillitis every two or three years. Also has rather severe headaches at times, frequently associated with the catamenia. Her weight is 139 pounds, which is as much as she has ever weighed.

Present illness: About twenty-two years ago, after a fall on the ice, began to have urgent, frequent urination. For two years there was no treatment, and then on examination patient was told that she had a uterine displacement. During the following two years her condition grew worse until she gave up work eighteen years ago. She was seen by Dr. Garceau on March 25, 1904, who found the patient was suffering from tuberculosis of the bladder. This organ was much contracted, holding only 60 cc. and there were ulcerations found, especially around the left ureteric orifice. Tubercles were also seen throughout the rest of the mucous surface, and there was no difficulty in isolating the tubercle bacilli. The patient was suffering a great deal, and was entirely incapacitated from doing anything in the way of work. Dr. Garceau's opinion was that it was not impossible that the kidney might be badly damaged, and yet give no symptoms of any degree. Still, he was inclined to think that the kidney was a good one because the amount of pus coming from the bladder as a whole was not in excess of the lesions in it. A month later Dr. Garceau made a vesico-vaginal fistula, and at the same time examined the kidneys. He found that the right one was doing good work, but that there was no urine coming from the left side at all. The bladder was filled with tuberculous ulcers. In regard to the kidneys, he felt that there was either no kidney on the left, or else that it had been destroyed by a slow suppuration. Patient continued to bear the vesico-vaginal fistula for two years. During this time she washed bladder out herself. At the end of this period the fistula was closed and the bladder was dilated about twice each week for six months. Then about once a week. Its capacity at the end of this time was about 180 cc. Patient's general condition then remained entirely satisfactory for the next seven years, that is, until five years ago, when similar symptoms recurred, and the bladder was found again contracted. For eight or nine months dilatation was employed with much improvement, and she considered herself entirely well until March, 1917. Then the bladder began again to misbehave. At this time, there had been a recent attack of tonsillitis. During the past six months the condition of the bladder has become steadily worse, until at present she must urinate every 15 or 30 minutes during the daytime, and frequently at night. There has been throughout the whole course of the patient's illness no pain or discomfort in the region of either loin. Examination at this time showed no evidence of disease in heart, lungs, or abdomen. The pelvic examination was normal. On the 12-x, the patient was examined by cystoscope under spinal anesthesia. This shows in the first place a markedly contracted bladder. If more than 100 cc. is introduced there is definite bleeding. Examination of the mucosa showed several superficial ulcerations especially confined to the region of the base and trigone. The right ureterie orifice was found in this hyperemic area after some search. Continued observation over a considerable period of time was entirely unsuccessful in demonstrating any trace of the left orifice. The right orifice was catheterized for the normal distance and an injection of phenolphthalein made. This was continued for one hour and during this time 21% of phthalein was put out. The microscopic examination of urine from this kidney was negative except for appearance of an occasional red blood cell. After the period during which phthalein had been collected an injection was made into the muscles with indigo carmine. This appeared in the urine in 20 min. and the bladder was again observed over a period of one-half hour in an endeavor to demonstrate possible efflux of blue from the missing left orifice. No trace of any could be found, however. A specimen of urine has been sedimented and injected into a guinea pig. Patient is discharged on the 13th of October with the advice to have her bladder treated systematically until we are in possession of the report from the pig.

Special Note. October 12, 1917: From studying this patient my opinion is that she in all probability has had a T.B. of the left kidney which has progressed slowly and without symptoms referable to this organ. During this process the ureter has become occluded. The other alternative is that the left kidney is absent congenitally, but we know from autopsy records that any absence of a kidney is exceedingly rare. It is of great interest that the drainage of the bladder by vagina was able to

bring about a remission of the T.B. in the bladder, as is evident from previous history. Also it is of interest that the patient was able to tolerate the conditions established by such an operation so well. She is very intelligent and was carefully trained by Dr. Gareeau to wear an especially fitted urinal which was boiled twice daily. Furthermore, she was trained to wash and medicate her own bladder as the occasion demanded. For this she used a catheter in the most approved sterile fashion, and also put on sterile gloves for introducing the instrument. The question which is not yet clear in my mind is that of the cause of the present difficulty. Is it to be supposed that the left ureter has become slightly patent on some occasion and allowed T. B. to reinfect the bladder which had been entirely free? Or must we assume that the bladder was never entirely healed and that as a sequence of her attack of grippe last March a latent focus of T. B. has been lightened up again. Further observation is to be much desired.

Two guinea pigs injected, negative for tuberculosis one month later. Urine at this time showed: sp. gr. 1016; albumen, a trace; no sugar; by microscope considerable debris and a marked amount of pus cells.

Reëntry: 4-i-18. Examination essentially same as before. It has not been possible by local measures to control the frequent urination, and other evidence of cystitis of which patient complains. She enters hospital therefore for exploration of the left kidney region under supposition that she has here a kidney which has probably been occluded by an old tuberculous process, but which occasionally serves to light up the tuberculous involvement of the bladder. Operation was undertaken on the following day, and an enlarged kidney 13.5 x 8.5 x 5 cm. was removed. Its surface was roughened and the perirenal tissues were found to be the seat of dense adhesions. The color was pale yellowish pink. There was distinct lobulation which on section corresponds to pockets within the kidney capsule, filled by soft caseous material. There was no trace of any normal kidney tissue to be found and the ureter was occluded. The patient was discharged after a normal convalescence on the 15-i-18, 11 days after operation.

Reëntry: 20-i-1920. During the past two years patient has been under observation and has at no time been free from bladder discomfort, together with frequent urination. Though never absent this discomfort has occasionally assumed increased proportions, and at each time she has been able to work only with great difficulty. Treatment has been by instillation either by iodoform, glycerine, olive oil, or carbolic acid. The bladder capacity is about 200 cc. when it is quiescent, but when it is giving much trouble this capacity diminishes markedly, so that it is only about 50 cc. The urine is sparkling, but on examination by microscope shows only an occasional white blood cell. Cystoscope does not show any evidence of ulcers remaining, but in the upper left vault there is a marked puckering and drawing together of the bladder by old scar. All local measures having been exhausted, the patient was operated on on the 23-i-20. Through a midline incision over the symphysis the prevesical space was opened. There were found here marked adhesions, and dense induration of the fat, firmly binding the vault of the bladder to the peritoneum. The peritoneal cavity was opened and the pelvic contents found to be normal in every way. Incision of the bladder at one side of the most scarred area showed its wall in this situation to be hardly thicker than 2 mm., and to be converted almost entirely into fibrous tissue, covered by a layer of mucosa. An attempt was made to resect this scarred area where the bladder was much more thickened, but this was successful only in part because of the very limited capacity of the organ. The whole bladder was mobilized as well as could be, extra-peritoneally, and the wound resulting from the excision was united around a large tube.

DR. PHELPS: I wish to show a few specimens and a few cases.

First: Here are six stones which I removed from the bladder of a man 58 years old who had presented no symptom whatever, until within six weeks before he came under my care. He had passed bloody urine at intervals and noticed that the stream stopped. I made the diagnosis by cystoscopy and counted four stones. I got six at operation.

The other specimen is that of a tuberculous kidney which was removed at Harvard Private Hospital.

New Case Report: There seem to be a number of cases of papilloma of the bladder at the present time.

I wish to report and show the first case, that of R. T., a man 41 years of age, who had been treated by medical men for five months before he came to me. His chief complaint was that of blood in the urine.

Cystoscopic examination showed papilloma of the bladder, situated above and a little to the inner side of the left orifice, cauliflower-like in appearance and easily movable. He has been fulgurated by the D'Arsonval current eight times and at the last examination only the scar was discernible. He has now been five months without any hematuria.

The other cases were prostatectomies.

C. M. Age, 79. Two-stage suprapubic prostatectomy. A very hard prostate to remove. He has great relief from symptoms, is able to be about and is working at odd jobs. Has some lack of control of urine.

Mr. L. W. C. Age, 55. Two-stage pros

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tatectomy. Is doing well. Done at Worcester City Hospital. Is helping about wards and is a grateful, happy patient.

Mr. E. L. Age, 86. An old gentleman who came from Sweden. He had been in the hospital three different times and was passed up as a poor operative risk. Perineal prostatectomy was done in his case and the results have been most gratifying. He is about his home and says he feels fine.

Mr. A. M. T. Age, 75 years. Also a two-stage prostatectomy. When I first saw this man he was complaining of lack of control of his urine. I removed two quarts of urine from his bladder. His kidney function was 18%. Under treatment which consisted of catheterization, his kidney function came up and he seemed to be a fair operative risk. It is nine months since his operation and he has withstood it nicely. He is about his home and does carpentry and odd jobs, and attends meetings of his secret societies with joy and comfort.

Gas oxygen was used in all these cases.

DR. COOK: An unusual case of periurethral abscess. Infection of the abdominal wall. This man had a stricture for fifteen years. Nine days ago he went to a surgeon in Providence. His temperature was 104°. He complained of chills and sweats. He passed water without difficulty. He was referred to a medical man who thought he might have typhoid fever. Upon examination of the perineum a mass the size of a hen's egg was found and there was a cellulitis which extended across the abdomen. I saw him in the afternoon and sent him to the hospital. The following morning I made an incision in the perineum and an incision above the pubes and got out a considerable amount of pus. The infection continued to spread and two days later I opened him and found pus had spread away around to the spine on the right side. It was necessary to make several incisions to get out a quart of pus. The man is now practically healed.

"Prostatectomy," Dr. Henry G. Bugbee, New York.*

DISCUSSION OF DR. BUGBEE'S PAPER.

DR. CHUTE: I have been very much interested in the paper which we have just heard. There are some things, however, with which I do not wholly agree, though for the main part I agree most heartily. In reference to making cystoscopic examinations routinely on all prostatic cases. I think a sufficiently correct diagnosis can in most cases be made without the use of the cystoscope. There is the not inconsiderable danger of infecting a non-infected bladder and also the danger of traumatism from the passage of a cystoscope. The cystoscope helps us principally in recognizing a diverticulum of the bladder. It is not a great help in recognizing the cases of retention of spinal origin. It may be of help in determining the cases of the small fibrous prostate. If one is to do all his operations by the perirenal route, it may be important that he do a cystoscopic examination on his patients; if one does his operations suprapubically and especially if he does two-stage operations, the cystoscope can show him nothing that he may not easily find out at the time of his preliminary operation. While I recognize the importance of cystoscopic examination in certain cases of prostatic origin, I do not believe that it is a maneuver which should be carried out routinely in these cases.

Also I do not agree with Dr. Bugbee about the danger in removing suddenly the back pressure on the kidneys that arises from an overdistended bladder. I have not the slightest compunction about opening these distended bladders, which I do very frequently. I do watch these cases carefully after opening their bladders, which I always do under local anesthesia. I believe that it is extremely essential that this be done under a local anesthesia rather than an inhalation anesthesia. If the urine in these cases diminishes, I give these patients salt solution under the skin, 500 to 750 cc. two or three times a day for a week or even ten days, if it is necessary. I believe in this way that we can almost always control the tendency that these kidneys may have to shut down. I think it was Dr George Smith who supplied me a probable reason for the action that I had so often seen large amounts of salt solution produce on these kidneys, that have been affected by back pressure. The explanation is that kidneys that have been embarrassed by back pressure cannot extract waste products from a concentrated blood; that if, however, the blood is very dilute, they will often work perfectly well. You can, in a way, compare it to the man who is suffering from gastritis. While he cannot take his nourishment from concentrated foods liked corned beef and cabbage, he is perfectly able to take a sufficient amount of milk and lime water to give him the same amount of nourishment. I feel that the large suprapubic tube is an advantage in that there is less chance of it being stopped with blood clots. You have less chance of intermittent drainage and likewise a better approach to the prostate for your second operation, the prostatic enucleation, and you are less likely to open up the layers of the abdominal wall in your manipulation in the removal of the gland.

I practically never use the Hagner bag. I use what I believe is a simpler process for the control of hemorrhage. After the enucleation of the gland, I place a good sized soft rubber catheter in the urethra. If there is any tendency to bleeding, I pack the bladder outlet tightly against this catheter and hold it for a time. As I almost invariably do my prostatic

* See JOURNAL, page 41.

enucleations under spinal anesthesia, I can take any time within reason to control the hemorrhage. If the hemorrhage stops satisfactorily, I take out my packing and put in a suprapubic tube. If after replacing my packing a few times, there is still more bleeding than I feel is safe, I pack in one, two or three gauzes about the bladder outlet and leave them from 24 to 72 hours. I have seen slight secondary hemorrhage following the removal of this packing but it is very rare indeed. I wish to compliment the reader on his paper, which I have enjoyed very much.

DR. BARNEY: I agree with Dr. Chute that the cystoscope is becoming less and less important. There are some advantages to be gained for the surgeon but it is a disadvantage for the patient.

I use the Hagner bag very much less than I used to. There is so much less hemorrhage in the secondary operation that it is only occasionally required.

I want to say a few words in commendation of the perineal operation which I know still has a black eye, but which I have tried out for my own satisfaction. I have done about one hundred such cases and have lost only two or three that I can recall. I am sure, in my own experience, the results have been very promising. In a certain type of case it is a very satisfactory operation. It can be done under a small dose of spinal anesthesia and there is much less hemorrhage. It has, however, certain drawbacks and it is necessary to know the anatomy of the perineum. Where care is taken it is an excellent operation and in my hands there have been good results and no evil consequences.

DR. HORACE BINNEY: I wish, Mr. Chairman, to express the pleasure it has given me to hear Dr. Bugbee's most scholarly and interesting paper.

I feel, from personal experience, that I must stand up with Dr. Bugbee in support of the cystoscope in the diagnosis of these prostatic conditions. In one of my cases of prostatic hypertrophy, a careful cystoscopy was not done, the enlargement of the gland seeming to account for all the symptoms. A perineal prostatectomy was performed, and all was well until two days later the patient began to have very severe and frequent spasms of the bladder, which could not be controlled by morphia. Feeling that suprapubic drainage was the only remaining means of relief, I operated again, and in exploring the open bladder with my finger, I found the opening of a large diverticulum. The insertion of a tube, and drainage of the diverticulum, gave complete relief. The exhaustion due to the spasms and second operation made a slow convalescence, but the patient was out of bed and apparently recovered when, to my surprise, he died suddenly from a pulmonary embolus. I have always felt that a careful cystoscopy might have prevented this outcome.

Cystoscopy in the old days, with a large instrument was often very painful. Today, with a small calibre instrument, it may be almost painless; the one I use is a Wappler measuring No. 17 French.

Again, I want to voice my staunch support of the cystoscope.

DR. QUINBY: I wish to emphasize the large amount of investigation and reading represented in the historical part of Dr. Bugbee's paper. I assure you that his résumé is very accurate, interesting, and valuable.

I quite agree, in general, with the operative measures for the prostatic hypertrophy and the details in regard to them which Dr. Bugbee has advocated.

I agree with him, and disagree with Dr. Chute, in regard to the use of the cystoscope. I feel that in every instance we should know exactly what we are about, before we operate on our fellow-man. It is in just this point that urology excels other branches of surgery. The urologist can know just what he is going to do and going to find before he operates; the general surgeon, on the other hand, must often do an "exploratory operation." It is, therefore, a mistake to teach that one should not investigate every patient to whatever extent is possible, in order to reach a proper diagnosis. When correctly used, I have never seen the cystoscope cause any harm to the patient.

My ideas in regard to the suprapubic operation in two stages I have already expressed in the paper to which Dr. Bugbee has referred. Also in regard to the control of hemorrhage, I think that we are pretty much in agreement at present.

DR. O'NEIL: I want to add my thanks and appreciation to those of the others to Dr. Bugbee for coming to us and reading his extremely interesting paper.

A good many points which I would like to talk about have already been discussed by some of the other men.

In regard to whether or not a routine cystoscopic examination should be made in cases of prostatic obstruction it seems to me it is a matter entirely of the type of case and dependent upon the skill and experience of the operator.

In many cases, in my opinion, it is unnecessary, and in some I think it may be harmful. I should say that those cases absolutely requiring it are in the minority.

In regard to the functional test it has always seemed to me it is not so necessary that we should have a high output, but that it should be steady. We have frequent cases with a comparatively low phthalein output but which was uniform go perfectly satisfactorily through a two-stage prostatectomy.

I am strongly influenced in my judgment by

the patient's general condition, a clean tongue, lack of digestive symptoms, and a good urinary output, from 60 to 70 ounces a day.

In regard to the use of the Hagner bag, I have found it a good friend, particularly in the one-stage operation. In the two-stage operation where the prostatic congestion has been relieved by drainage, the likelihood of bleeding is considerably less.

I think the employment of the large self-retaining catheter for suprapubic drainage instead of a large tube, possesses definite advantages in that the patient can be kept dry and the wound heals more readily. In cases where there is hemorrhage a larger tube, of course, is superior.

Dr. Bellisle: In three G. U. hospitals in France, no prostatectomy is performed unless the patient is cystoscoped. The wound is always packed and drainage through the bladder is always established.

Dr. Bugbee: In regard to cystoscopic examination, I feel that it involves a personal element. I have often had patients come to me and almost beg that I should not cystoscope them because following a previous examination they had been laid up in bed for two weeks. We use a small cystoscope, and it is very seldom that we cause pain or have bleeding after such examinations. A small instrument can be inserted easily, and unquestionably much valuable information obtained.

I can recall two patients, under the care of excellent urologists for a period of two years being treated without a cystoscopic examination for a prostatic growth. Both had vesical calculi.

In speaking of this technique of prostatectomy as I have tonight, I feel that if we can save a patient anything, we ought to. So in every detail of handling these prostate cases, it is a question of what we can do in each individual case. When we have low mortalities then we are getting down to the comfort of the patients. When a Pezzer catheter is used for preliminary suprapubic drainage there is no leakage around the tube and the patient is more comfortable than with a large tube.

Dr. Keefe: I wish particularly to bring your attention to the necessity for careful preliminary examination and treatment. Too often we find that the specialist confines his activities to the organs that come directly within the scope of his specialty, which of necessity, has a tendency to restrict his vision. We all realize that specialism has advanced our knowledge of medicine, and yet we should guard against the phases of this very specialism, that may be harmful.

There is a separate problem in each case that comes to us for study and treatment, which makes it essential that we view the body as a whole, and apply the knowledge we have gained in general medicine and add to it the special skill we have acquired in our specialty.

The patient, in his desire to have the operation soon over, is prone to persuade the surgeon to operate, perhaps the next day after entering the hospital, and before an adequate examination can be made, occasionally to the detriment of the patient.

A large number of patients suffering from an enlarged prostate may be readily cystoscoped, while others present insurmountable difficulties, even to an expert cystoscopist.

There is good reason to believe that considerable injury may be caused by attempts at cystoscopy, in these latter cases, therefore, I agree with Dr. Chute that it is unwise to cystoscope in every case, where we are dealing with an enlarged prostate. I prefer the two-stage suprapubic operation, in the very large majority of cases, and yet would employ the perineal route in certain cases, because with an accurate knowledge of the perineum, the operator can see and have each stage of the operation under his command.

We should not limit ourselves to the universal use of any one method, but should employ the operation best suited to the case in hand.

The incision into the bladder, made during the first stage of the suprapubic operation for prostatectomy, should be made large enough to allow the entrance of the finger, to explore the bladder for stones or diverticula, as well as to obtain a knowledge of the position, size and extent of the prostatic enlargement.

The value of the suprapubic drainage is shown not only in the marked improvement in the general condition of the patient, but in the diminished size of the prostate found at the second stage of the operation.

The case report by Dr. Barney, where the kidney was removed for marked disease and yet the patient never complained of pain over the kidney, is somewhat analagous to a man who was sent to me by his physician, as a case of cancer of the stomach.

He was a man about sixty and had lost in weight forty pounds during the past three months. He said in reply to questions, that he had no pain or frequency in urinating, that the urinary apparatus was all right, but that he had vomited everything taken by mouth during the last three weeks and he thought all the trouble was in his stomach. When I placed my hand on his abdomen, I felt a mass which was dull on percussion, reaching from the pubes to the umbilicus. I asked him when he had passed water, and he said about an hour ago. I passed a catheter, and withdrew three pints of urine, with no ill effect to the patient. I have never witnessed any harm to the patient by withdrawing large quantities of urine from the bladder: symptoms of shock undoubtedly have happened, because some have noted it, but the occurrence must be rare. The prostate was ex-

amined and found markedly enlarged. The patient was catheterized for five days, and never vomited after the first catheterization. A two-stage suprapubic removal of the prostate was done, and the patient regained thirty pounds in three months.

Book Reviews.

Genito-Urinary Diseases. American Medical Association, Chicago: American Medical Association Press. 1919.

The transactions of the Section on Genito-urinary Diseases of the American Medical Association at the sixty-ninth annual session held in Chicago in June, 1918, have recently been published. One of the most interesting articles in the volume is an address by Edward L. Keyes, Jr., on "Present Status of the Urology of War." The author has reviewed the situation as he has found it in France, stating that at the front, the wounds of the urinary organs inevitably fall to the care of the general surgeon, as there is no genito-urinary surgery as such. He describes the wounds most likely to be inflicted under war conditions on the kidney, the ureter, the bladder, the urethra, and prostate, the external genitals and anterior urethra, and comments upon the effect which the results obtained by the primary suture of wounds will probably have on the future status of urology.

A second article of interest is "Venereal Disease in the Thirty-Ninth Division," by Loyd Thompson and J. R. Bolasny, who discuss the public measures taken to diminish temptation and suppress prostitution and the personal prophylactic measures adopted by the Army. The medical treatment employed is outlined in detail. Abstracts of discussion of this topic are of especial interest.

In a paper discussing "Some Cases of Retention of Urine, Associated with Defects of the Sacrum, Probable Spina Bifida Occulta," Arthur L. Chute has cited the histories of several cases and described the effects of operations.

In an article presenting his observations on "Acute Colon Bacillus Infection of the Urinary Tract," J. Dellinger Barney discusses the possible existing causes, natural and artificial immunization, symptoms, and methods of treatment.

This volume contains many other papers, many of which are illustrated by plates, which merit the attention of the profession.

Compendium of Local Diagnosis of the Brain and Spinal Cord. By ROBERT BING, Professor at the University of Basel. Fourth Revised Edition. Berlin and Vienna: Urban and Schwarzenberg. 1919.

This fourth edition of Bing's well-known introduction to the clinical localization of the diseases and injuries of the nerve centres is the second which has appeared since the beginning of the great war. In his preface to the third edition, the author commented on the great mass of new material especially with reference to the cerebellum and to disturbances of vision, produced by war conditions. In the present edition this material is even more fully elaborated and is enriched by the review of contributions to military neurology from all of the belligerent nations. Originally designed for the benefit of civilian practitioners, the book has been developed for the special purposes of military surgeons and neurologists. It is illustrated by 97 text-cuts, many of them in several colors.

Principles and Practice of Infant Feeding. By JULIUS H. HESS, M.D., Major M. R. C., U. S. Army, Active Service. Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine: Chief of Pediatric Staff, Cook County Hospital; Attending Pediatrician to Cook County, Michael Reese, and Englewood Hospitals, Chicago. Illustrated. Philadelphia: F. A. Davis Company, Publishers. English Depot, Stanley Phillips, London. 1916.

This little book from Chicago is very readable and full of good sense. The author is evidently a good practitioner as well as teacher. The book is exceptionally good regarding breast feeding and everything connected with it. We wish that it agreed as well with our beliefs as to artificial feeding. The author advocates the use of dilutions of whole milk with the addition of carbohydrates. He regulates the amount of milk to be given by the baby's weight. In our opinion he begins the administration of broths and vegetables too early. He follows the classification and ideas of the German school in his discussion of the diseases of the digestive tract except as regards the intestinal infections. He follows the teachings of the Boston schools concerning them until he comes to treatment, when he throws them all over. The book closes with an appendix on Proprietary Foods, the preparation of foods for babies and some general remarks as to the care and development of babies and young children.

THE BOSTON
Medical and Surgical Journal

Established in 1812

An independently owned Journal of Medicine and Surgery, published weekly under the direction of the Editors and an Advisory Committee, by the Boston Medical and Surgical Journal Society, Inc.

THURSDAY, JULY 8, 1920

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THE NURSING PROBLEM.

The shortage of pupil nurses that has been threatening for some years has now become acute. When the financial crash comes, that some predict for the near future, and when the factories not only no longer offer extraordinary wages but begin to shut down, it may be that many young women who now find in nursing no pecuniary attraction will again turn towards it as a livelihood. There is, however, no certainty either when this business stagnation will occur or that it will turn young women towards the nursing profession. In the meantime what can be done by the training schools to attract more applicants?

The main causes for the country-wide turning away of young women from nursing seem to be:

1. Other more remunerative occupations, both immediate and prospective;
2. Dissatisfaction of graduate nurses in actual service;
3. Shorter and far pleasanter preparatory courses for other employments.

These causes and whatever others can be discovered must be studied and, if possible, eliminated. For within the last half century, just as the hospitals have become dependent upon an ample stream of incoming pupil nurses, so for the medical profession, and indeed for the whole community, trained nurses have become indispensable. The present shortage of probationers foreshadows a public calamity in the near future.

With the first two causes the schools are not especially concerned. They might, however, do more than they now do for their graduates. They might, for instance, provide and maintain Homes for them at moderate cost when they come back from their cases, perhaps sick themselves or only exhausted. They might also help them to shorter hours and to larger wages and salaries by calling sympathetic attention to the fact that nurses' charges have not increased anything like the cost of living or wages in other employments.

It is the third cause of the present shortage, and the possibility of making the course of training shorter and more attractive, that should receive most earnest consideration.

In the first place we must see to it that in any changes proposed there shall be no lowering of present standards. To maintain these standards it may not be possible to shorten the course of training. But may it not be possible to divide the course into separate branches, and, as the pupil nurses complete them satisfactorily, to give certificates of fitness in these different branches? With such certificates the pupils nurses could be recommended for service in whatever branches they have qualified. They could thus find remunerative employment, after say one year of preparation. And then, if they so desire, they could afterwards at any time return for additional training in other branches and for extra certificates which will give them wider fields of service and still higher remuneration.

After winning certificates in all the different branches then they might be given the diploma of the school, which would also continue to be given to pupils who complete the regular course without interruption.

These different branches, for which separate certificates might be given are:

1. *Domestic Science,* including what is now usually given in the preparatory course (four months).
2. *General Nursing,* in medical wards (eight months).
3. *Maternity and Infant Nursing* (four months).
4. *Contagious Nursing* (four months).
5. *Home Nursing,* including Visiting Nursing (four months).
6. *Public Health Service,* including School Visiting and Industrial Nursing (four months).
7. *Surgical Nursing,* including Operating Room Service (six months).
8. *Head Nurseships,* or Hospital Senior Service (six months).

Were these tentative periods adopted, forty months would be necessary for their completion, which, with the allowance of interruptions, would not more than offset the advantage both to the schools and to the pupil nurses of the usual uninterrupted course of thirty-six months.

Young women who have made definite choice of a nursing career will naturally take the regular course of training. The far larger number, however, who are not so decided, but who look forward rather to early marriages and homes of their own, or who want as soon as possible to earn money for themselves or their families in work where their hearts as well as their hands shall be employed, will be likely to prefer the shorter training offered in the special branches and the much earlier opportunities for earning good wages.

In this scheme there might well be considerable choice of the order in which the different branches may be taken. The first two branches, of course, would have to be taken first, and the two last in the list would have to be taken last. By no means all of those who would take this proposed divided training may be expected to complete the series. Some, for example, will be glad to escape the course of training in contagious nursing, even if by winning a certificate in that branch they could command higher wages. And some will prefer maternity and infant nursing, while others will avoid it. But for all who take the training and win their certificates in any branch there will always be both the chance afterwards of climbing the ladder towards a complete education with all the privileges carried by a full diploma, and also the chance of early earnings in an ascending scale. Whatever wages may be fixed as proper for certified nurses in the intervals between their courses of training, while taking further training in other branches these wages should be halved. And, furthermore, these reduced earnings ought to be equally divided between them and their nurse teachers, the pupil nurses thus by their earnings paying for their instruction.

Young women who now cannot possibly afford to take the training might by this plan easily do so. Moreover, many who hesitate to promise in their application papers to remain throughout the course, provided they are accepted as probationers, would willingly enter for one year.

The adoption of this plan by our existing training schools would obviate the necessity of creating separate schools for "attendant nurses," which at best could give only a smattering nursing education instead of a solid foundation for subsequent training. And, besides, during the first year, under this plan, the pupil nurses would be of great use, instead of a disturbing element, in the hospitals.

There can be no doubt of the great usefulness to the community of nurses who have had only one year of training. Their certificates would specify just what kind of nursing they are fitted for, which is a large proportion of what is needed. Their schools might well furnish them and the public with nursing registry service, including such extra oversight as would be advantageous and would ensure that only those who do well would be eligible for further training in what may rightly be considered the nursing specialties.

The "certified pupil nurse," whose training has been only interrupted, would be on a better footing than the "attendant nurse" whose training has been admittedly inferior. Whatever provisions might be made for the subsequent further training of "attendant nurses," it is not likely that many would avail themselves of such privileges. And we should thus have two distinct classes of nurses. This would be a great disadvantage. In every other profession we have only students and graduates. Why have any other classification among nurses?

There would be other large economic advantages in the general adoption of this plan besides the benefits of it to the pupil nurses. The

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facilities of the training schools would be fully utilized. The hospitals would be relieved of their present embarrassment. And families who cannot afford to pay for fully trained nurses, when as usually happens such are really not needed, would have all the nursing that is needed at half the cost of graduates' service.

But it is not enough to arrange shorter courses. If we want more nurses we must make the conditions of pupil nurse service more attractive. Separate chambers must be provided, so that each pupil shall have her own. Better food must be given to them by the hospitals. They must have shorter hours of service. More recreation must be provided, and parlors where the girls can receive their visitors. In short, the living conditions of the pupil nurses must be humanized.

This scheme of separate branches of nurse training is no new invention. Practically it is that of the White Cross of Holland, where it has worked well. Why not try it in this country?

ALFRED WORCESTER, M.D.

DISEASES UNDER THE WORKMEN'S COMPENSATION ACT.

THE Supreme Judicial Court of Massachusetts, in a far-reaching decision just handed down in Pimental's Case, states that the Workmen's Compensation Act does not cover any disease arising out of and in the course of employment. This decision, coming like a bolt of lightning out of a clear sky, in the face of a number of decisions the other way, has caused little less than a sensation in the ranks of employees and their physicians; and even insurance companies were not a little surprised at the scope and tenor of the decision.

The Court went far afield in deciding that no case of disease was included within the scope of the compensation statute. It had been previously decided, in broad and liberal decisions by the same judicial body, that lead-poisoning, optic neuritis, heart disease accelerated by injury, pneumonia, insanity following injury, acceleration of preëxisting syphilis, and other like disease conditions resulting from personal injury arising out of employment, were covered by the Act. In Brightman's Case, 220 Mass. 17, the Court said: "Acceleration of previously existing heart disease to a mortal end *sooner* than otherwise it would have come is an injury within the meaning of the Workmen's Compensation Act." In Hurle's Case, 217 Mass. 223 (optic neuritis case), the Court said: "The difference between the English and Massachusetts acts in the omission of the words 'by accident' from our act, which occur in the English act as characterizing personal injuries, is significant that the element of accident was not intended to be imported into our act. The noxious vapors which caused the bodily harm in this (Hurle's) case were the direct production of the employer." In Johnson's Case, 217 Mass., 388, the Court said: "Under the act, 'personal injury' is not limited to injuries caused by external violence, physical force, or as the result of accident in the sense in which that word is commonly used and understood, but under the statute is to be given a much broader and more liberal meaning, and includes any bodily injury. Aside from the decisions under the English Act, which provides for 'personal injuries by accident,' *it is clear that 'personal injury' under our act includes any injury or disease which arises out of and in the course of the employment*, which causes incapacity for work and thereby impairs the ability of the employee for earning wages."

Notwithstanding these and other similar decisions, and particularly the language used in Johnson's case, above, the Court states, in Pimental's Case, just decided: "If it could be held that the employee was suffering from an occupational disease, still the Workmen's Compensation Act does not in terms include disease. It cannot be held to cover disease contracted by employees in the course of and arising out of their employment. Pain is not disease, nor is disease resulting in pain a personal injury."

Had the Court confined its decision to the case under consideration, that of a cigar-maker whom the impartial expert who examined him said was suffering from neuralgic pain due to faulty posture and malformation of the thoracic bone cage plus the loading upon this region incident to the muscular action in rolling cigars for a number of years, there would be no cause for alarm. But when the Court goes far afield and sets down the broad principle that not only was this case outside the law, but that no disease contracted by employees in the course of and arising out of their employment, over-ruling all previous decisions to

the contrary in one bold paragraph, it is time for the medical profession of this state to get together and see that the law is amended and clarified to again place within its scope such disease cases as properly belong to and are chargeable against industry.

It is evident that insurance companies will now fight every claim under the Workmen's Compensation Act in which an employee suffering from a disease resulting from or aggravated by a personal injury arising out of his employment is concerned; and this means that not only will compensation payments be disputed but bills of physicians and hospitals as well.

The medical profession should make its tremendous influence felt in cases such as this, in which not only their own interests are involved, but the interests of their patients, the working people of the Commonwealth also are at stake.

Health and sickness insurance with an additional heavy charge on industry and further interference with the rights of practitioners by another state board, is sure to result unless there is restored to the Workmen's Compensation Act all disease cases arising out of and in the course of the employment. An amendment adding after the words "personal injury" the words, "or disease," so that the law as amended will read: "Compensation shall be paid to an employee who receives a personal injury or disease arising out of and in the course of his employment," will restore the Act to its past effectiveness and leave it safe from any possibility of danger by further action by the Courts.

Prompt, concerted action is demanded.

ELECTION OF A PHYSICIAN TO THE HALL OF FAME.

IN a letter published in another column of this issue of the JOURNAL, attention has been called to the fact that hitherto no physician or surgeon has been recognized as worthy of a place in the Hall of Fame. For this distinction, Dr. S. Adolphus Knopf has suggested the names of three physicians, William T. G. Morton, Ephraim McDowell, and J. Marion Sims. The proposal of the name of Dr. Morton has aroused some objections, on the ground that he was not the discoverer of surgical anesthesia. In support of Dr. Morton's claim we are glad to quote the following extracts from a letter submitted to the Senate of the University of New York by Dr. J. Collins Warren, Moseley Professor of Surgery Emeritus, Harvard University:

"I understand that medicine has thus far received no representative in the Hall of Fame and yet America gave to the world one of the greatest, if not the greatest, contribution to medical science, thus inaugurating a new epoch in the history of medicine.

"This epoch was ushered in on what is now known as Ether Day, October 16, 1846, when Morton gave the first public demonstration of surgical anesthesia in the Massachusetts General Hospital. Of this event Professor William H. Welch of Johns Hopkins University says: 'The attendant circumstances were such as to make the operation performed on October 16, 1846, in the surgical amphitheatre of this hospital . . . . . the decisive event, from which date the first convincing public demonstration of surgical anesthesia, the continuous, orderly, historical development of the subject and the promulgation to the world of the glad tidings of this conquest of pain.'

"Two months later, on December 21, 1846, Robert Liston performed the first operation under ether in Europe at the University College Hospital in London. The operation was an amputation of the thigh and was painless. Of this discovery Liston said, 'This Yankee dodge, gentlemen, beats mesmerism hollow.' In three months' time the use of ether had become a world-wide procedure. (*The Lancet*, October 26, 1915, 'Ether Day in London, October 16.')"

In a communication to the electors of the Hall of Fame, William J. Morton has called attention to the fact that Dr. Morton applied in vain to his own Government for some compensation and reward for his services; that although his claim as the discoverer was conceded in majority reports of no less than six committees of Congress and various bills were reported, the matter ended with no action favorable to Dr. Morton. Is it not fitting that he who at least made known to the medical profession the practical demonstrability of surgical anesthesia should be given a place among other leading Americans in the Hall of Fame?

COMMISSION ON MATERNITY BENEFITS

Dr. Alfred Worcester of Waltham, President of the Massachusetts Medical Society; Mrs. Helen A. MacDonald of Boston, Mr. Edward E. Whiting of Newton, Editor of the *Boston Record*, have been appointed by Governor Coolidge members of the Special Commission to investigate the question of maternity benefits. The other members of the Commission are Dr. E. R. Kelley, Commissioner of Public Health, and Mr. R. W. Kelso, Commissioner of Public Welfare.

The Commission is to serve without compensation and is to report to the Legislature not later than November 15 at the special session.

At this special session the work of the committee of sixty-one on revision of the statutes will be considered. The only other important matter likely to be considered is maternity benefits.

Thus there are time and opportunity for the medical profession to formulate its views and express its opinions. The duty must not be overlooked.

MEDICAL NOTES.

Gift of Brazilian Hospital to France.—The hospital which was installed by Brazilians in the Jesuit Fathers' Building at Vaugirard during the war at a cost of ten million francs, has been offered by the Government of Brazil to France, and has been accepted by the French faculty of medicine. Although the hospital will serve for the study of medicine and surgery in general, it will be used more particularly for teaching practical surgery to Brazilian medical students in Paris.

The American Hospital in London.—It has been announced by *The British Medical Journal* that the London Committee of the American Hospital in London will entertain Dr. Charles W. Mayo of Rochester, Minnesota, at dinner in July. The invitations to the dinner, which is to take place at Claridge's Hotel, Brook Street, London, on July 6, were issued by the Earl of Reading, president of the committee in England: Viscount Bryce, the American Ambassador, who is vice-president of the committee, and the Board of Governors of the Hospital. Dr. Charles W. Mayo is a member of the Medical Committee in America; other members are Dr. William Mayo, Dr. Crile, Dr. Ochsner, and Dr. Franklin Martin of Chicago, and Dr. Matas of New Orleans.

One of the most important aims of the American Hospital which is to be established in London is "to act as a link in binding together the two nations for the advancement of medical science as affecting the welfare of humanity." The Medical Committee in London desires to further this object and through the projected hospital and the Fellowship of Medicine to provide for American graduates the facilities in London and other parts of Great Britain which they used to seek in Berlin or Vienna. The committee will endeavor to raise an endowment fund of several million dollars as soon as the institution has become incorporated according to the laws of the State of New York. A new building will not be erected at present in London, but it is probable that within a short time a temporary building may be opened for the reception of patients and as a centre for American graduates visiting Great Britain.

BOSTON AND MASSACHUSETTS.

Week's Death Rate in Boston.—During the week ending June 19, 1920, the number of deaths reported was 177 against 167 last year, with a rate of 11.42 against 10.92 last year. There were 26 deaths under one year of age against 21 last year.

The number of cases of principal reportable diseases were: Diphtheria, 45; scarlet fever, 23; measles, 116; whooping cough, 44; typhoid fever, 3; tuberculosis, 57.

Included in the above were the following cases of non-residents: Diphtheria, 11; scarlet fever, 6; tuberculosis, 6.

Total deaths from these diseases were: Diphtheria, 3; scarlet fever, 1; measles, 1; tuberculosis, 19.

Included in the above were the following non-residents: Diphtheria, 2; tuberculosis, 1.

Influenza, 1 case.

Appointment of Dr. Benjamin White.—The appointment of Dr. Benjamin White as director of the division of biologic laboratories of the Massachusetts State Department of Pub-

lic Health, to succeed Dr. Milton J. Rosenau, resigned, has been announced. Dr. White has received appointments also as lecturer on immunology in the Massachusetts College of Pharmacy and as assistant in the department of preventive medicine and hygiene of the Harvard Medical School.

BEQUESTS TO MEDICAL INSTITUTIONS.—The will of the late Mary Wilson Tucker provides the sum of five hundred dollars each to the Perkins Institution for the Blind and the Melrose Hospital. The Children's Hospital and the Massachusetts Homeopathic Hospital each will receive one-fourth of the residue of the property.

MONSON STATE HOSPITAL.—Notwithstanding the many changes on the medical staff, the reports of the trustees and those in charge of the various departments of the Monson State Hospital, Massachusetts, show favorable results for the year ending November 30, 1919.

The number of patients in the institution has decreased since the beginning of the war. The shortage of help made the labor of such patients as were able to do work more acceptable in the community, and a large number found positions which many of them have succeeded in retaining. In other cases patients who were able to work even a little have been taken home and cared for by their families as their labor seemed to be of sufficient value. Now it is very likely that many of these will eventually return to the hospital. Under home conditions and the responsibility of caring for themselves, quite a number have broken down and have died of acute illness at home.

The appropriations made during the last three years have been used for the needs which seemed to be most pressing at the time, and further appropriations are necessary for alterations in the buildings and working equipment.

From the report of the teacher of the Children's Colony, the academic work has progressed as usual. The children have shown a great interest in the development of their gardens, the products being used at the Children's Colony. The many entertainments and outings during the year afforded them happy recreation.

NEW ENGLAND NOTES.

WAR RELIEF FUNDS.—The following contributions have been announced by the New England War Relief Funds:

French Orphanage Fund	$598,355.51
Near East Relief	355,064.02
Italian Fund	328,991.71
Serbian Child Welfare Fund	48,767.00

Miscellany.

WORKMEN'S COMPENSATION ACT.

THE following statement embodies the decree of the Supreme Judicial Court in the recent Pimental case, which is commented upon editorially in another column of this issue:

Crosby, J. The employee is a cigar maker and worked continually at his trade for fourteen or fifteen years. Early in the year 1918 he began to have pain in the region of the back of his neck and in February or March, 1919, he consulted a physician, who told him that he had occupational neurosis. On May 2, 1919, he was obliged to give up his work.

William J. Daly, the impartial physician, testified that the employee had "an undeveloped left side; a shortened left leg with sinuses from old pus processes about the left buttock and the anterior surface of the hip; . . . . a faulty posture both in standing and sitting. . . . . distortion of the spinal column . . . . (the result) of faulty posture, (and) malformation of the thoracic bone cage"; that "all this distortion and malformation had the effect of producing bony pressure on the spinal nerves . . . . so that when the loading upon this region incident upon the muscular action in rolling cigars, took place, after a number of years, it produced neuralgic pain . . . . In consequence of his working and using the movements he did, his work as a cigar maker was a certain consequence of causing his condition. In the first place he sits faulty; his left buttock being undeveloped, his left pelvis sags. He does not sit evenly on the buttocks. In that way he crowds the vertebrae unevenly in the other parts of the spine, so that any sitting occupation could contribute to the brachial pain . . . . In a man with no asymmetry, who was in a fair state of nutrition, this condition probably never would develop. . . . . The particular movements which produce this condition are the rolling process at the end of the making of a cigar, whereby a weight of the forearm, the arm, and some of the shoulder and shoulder girdle are brought down upon the cigar in order to make a firm

wrapper." He further testified that he "was of opinion that if the employee had a sitting-down job where there was no muscular loading or tension, as in the rolling process, he might have supported the condition of his spine for years longer without trouble. He believed that the upset factor in the thing was the muscular tension and the loading incidental upon the rolling movements . . . . that the employee's condition would come on or did come on quicker because he rolled cigars than it would have had he worked at any other sitting-down occupation. . . . . He thought that the rolling movements are the movements which brought about the pain. . . . . This employee has not neuritis." Further, "He thought that if the employee assumed a different posture by putting a pad under his left hip, and by raising the table at which he worked, he would go along 'all right' . . . ." "In his opinion, any sitting occupation is likely to cause the neuralgic pain which this employee experienced in the region of his neck. If he sat eight hours a day in his home reading a book 'with his hip in that position, in any position,' he would be likely to have the same sort of a pressure in that brachial region as he had while sitting at his work. If he sat in a chair at his home over a period of fourteen years, reading a book every day, he might get from that the neuralgic pain which he experienced in March of 1919."

Another physician testified that he had examined the employee and that "he did not see how his occupation could produce his condition. This employee's occupation involved chiefly the use of his arms, and his arms were free from all trouble. . . . . This employee's condition is not in the muscles; it is in the skin, as far as he could determine . . . . that occupational neurosis is due to the action of muscles used in the occupation. . . . . He was of the opinion that there was a mental situation in this case. . . . . He attributed this employee's condition to the combination of a mental attitude and a skin sensation."

The single member found that "while there was an underlying and preëxisting condition, following hip disease, it was the muscular action in rolling cigars for a number of years which precipitated the neuralgic pain and brought into being the personal injury which totally incapacitated the employee for work"; and that "Finally, as a result of the effect of the muscular movements required by his employment in making cigars, acting upon his particular condition of health, neuralgic pain, a personal injury under this act, developed. The employee's total incapacity for work is due to that personal injury and will continue for a period which is not now determinable." He also found that the employee was entitled to compensation under the act. On the same evidence the Industrial Accident Board adopted the findings and rulings of the single member.

The case at bar is similar in many respects to Maggelet's Case, 228 Mass. 57, and is governed by it. While the board found that the neuralgic pain was induced by muscular action in rolling cigars for a number of years, the impartial physician testified that any other occupation was likely to cause the pain from which the employee suffered, and that this condition could result independently of any occupation, and could come from any sitting or standing occupation; in view of this, together with all the other evidence, we are of opinion that the pain could not have been a reasonably necessary result of the employment, and cannot be said to have been a personal injury peculiar to it. We are also of opinion that there was no sufficient evidence to warrant a finding that the employee had neurosis,—a disease with which cigar makers are sometimes afflicted—and the impartial physician so testified; nor is there evidence that he had any disease, the reasonable inference being that the neuralgic pain was not due to his occupation but was rather the result of faulty posture brought about by long and laborious work, a condition which would have been equally liable to arise in whatever employment he might have been engaged, or if not employed at all. McNicol's Case, 215 Mass. 497. Donahue's Case, 226 Mass. 595. Although the condition arose during the course of the employment, it cannot be found to have arisen from it. "A nervous condition dependent upon poor posture of the body in our opinion does not constitute a commonly known and well recognized personal injury consequent upon employment. . . . . But personal injury and disease are not synonymous. They are different in meaning. One does not include the other." Maggelet's Case, 228 Mass. 57, 61, 62.

If it could be held that the employee was suffering from an occupational disease still the Workman's Compensation Act does not in terms include disease. (See St. 1913, c. 817, s. 12.) It cannot be held to cover disease contracted by employees in the course of and arising out of their employment. Pain is not disease, nor is disease resulting in pain a personal injury.

In Hurle's Case, 217 Mass. 223, Johnson's Case, 217 Mass. 388, and Doherty's Case, 222 Mass. 98 there was evidence that the employee was suffering from poisoning arising from the performance of his work. Poisoning has generally been regarded, as in the nature of a personal injury. H. P. Hood & Sons v. Maryland Casualty Co., 206 Mass. 223, but the doctrine of those cases which dealt with disabilities in the nature of personal injuries cannot be held to apply to the present case. The language in the opinion in Johnson's Case, *supra*, is to be limited to the precise facts in

that case and is not an authority in favor of the contention of the employee in the case at bar.

While the act should be construed liberally, it should not be extended to cases which cannot reasonably be interpreted as within its scope. The statement in Maggelet's Case, *supra*, at page 61, that "No case has gone so far as to hold that a 'neurosis of the nerves' supplying certain muscles, resulting from a posture which causes the employee 'to bend forward with shoulders forward' so as to induce 'pressure on the brachial plexus' is a personal injury," applies in principle to the case at bar, although the employee is not suffering from neurosis, and notwithstanding the finding of the board that a result of the muscular movements required in rolling cigars acting upon his particular condition, neuralgic pain developed. It follows that the decree must be reversed and a decree entered in favor of the insurer.

So ordered.

MATERNITY BENEFITS.

THE measures proposed in the early part of the Legislative session for maternity benefits have been fully presented in the JOURNAL.

On April 23, the Committees on Public Health and Social Welfare, sitting jointly, presented Senate 506; Messrs. Nason, McIntosh, Quinn and Churchill of the Senate, and Grant, O'Connor, Harvey, Harrington and G. F. Murphy of the House dissenting.

The provisions were as follows:

Section 1. From and after the first day of December, nineteen hundred and twenty, the department of public health shall have charge of the administration of maternity care, in accordance with the provisions of this act.

Section 2. The said department is hereby authorized to furnish, in addition to advice and instruction, nursing and expert prenatal care to pregnant women at home, at some hospital or local clinic at the option of the expectant mother; also nursing or hospital care at the time of confinement if in the judgment of said department the safety of the mother or child requires such care.

Section 3. In order to be eligible for the benefits of this act, the expectant mother must agree to accept and carry out such instructions as, in the judgment of the said department, her case requires. All applications for care under this act may be made directly to the said department or through any local board of health or practising physician.

Section 4. Maternity cases under this act shall not be given to a city or town physician, in his or her official capacity. The recipient of maternity care under this act, if remaining at home, shall be allowed to choose her own physician, subject to said physician's acceptance of the fee schedule for such cases, and other rules and regulations of the said department governing this act.

Section 5. The said department shall make, and may, from time to time, add to, alter, amend or repeal, such rules and regulations as may be necessary to carry into effect the provisions of this act.

Section 6. The said department shall report to the general court on or before February first, nineteen hundred and twenty-two, with such recommendations for the further extension of maternity care during the natal and postnatal periods and for such other assistance to expectant mothers, as it may deem advisable.

Section 7. For the purpose of carrying out the provisions of this act, the said department may expend from the treasury of the commonwealth a sum not exceeding two hundred thousand dollars.

It will be seen that this bill provided for nursing and expert prenatal care but made no provision for care at the time of confinement, except in the abnormal case.

A month later, on May 26, the Senate Committee on Ways and Means, to whom Senate 506 was committed, reported a new bill, Senate 572. This bill is much longer.

Section 1 provides that the Department of Public Health should have charge of the administration of maternity benefits.

Section 2 provided that

. Any woman resident in the State for one year who

. . . presents to the department of public health at least two months previous to her anticipated confinement, evidence satisfactory to said department that she is pregnant, and who is found by said department to be without means of providing the ordinary and proper care for herself or infant or both during a reasonable period before and after childbirth.

Section 3 left the method of applying for benefits to the Department of Public Health.

Section 4 provided for keeping secret the identity of applicants for aid.

Sections 5 and 6 provided as follows:

Section 5. Maternity benefits may be granted for a period of one or more weeks; the time to be divided before and after confinement in such way as the department of public health may determine. Any woman entitled thereto shall immediately after application be entitled to receive and, in order to be eligible for the benefits of this act, must accept such instruction in general hygiene and infant care as in the judgment of the department of public health the individual case demands, and, in the discretion of the department of public health, hospital care or home nursing, or medicinal care, and such other obstetrical care as may be necessary.

Section 6. Maternity cases under this act shall not be given to a city or town physician in his or her official capacity. The recipient of maternity benefits, if remaining at home, shall be allowed in all cases to choose her own physician, subject to the approval of the department, and if removed to a hospital or local clinic to be one of her own selection subject to such rules and regulations as may be fixed by the department of public health.

Section 7 provided against fraud, and Section 8 provided that the father of an illegitimate child should be liable to reimburse the state.

Section 9 provided that

Section 9. The department of public health shall make, and may from time to time, add to, alter,

amend or repeal, such rules and regulations as may be necessary to carry into effect the provisions of this act, including rules to define and delimit as accurately as may be possible, the conditions under which, and the time when, women are entitled to benefits under this act.

Section 10 dealt with administrative details. The other sections were as follows:

Section 11. The receipt of benefits under this act shall not operate to bring upon the recipient, her husband, or any one else, the status of a pauper within the meaning of the laws of this commonwealth, nor to prevent the acquirement of a settlement.

Section 12. This act shall be liberally construed to effect its purpose to preserve the health of the citizens.

Section 13. The said department shall report to the general court on or before February first, nineteen hundred and twenty-two with such recommendations for the further extension of maternity care, and for such other assistance to expectant mothers, as it may deem advisable.

Section 14. For the purpose of carrying out the provisions of this act, the said department may expend from the treasury of the commonwealth such sums as may be appropriated by the general court,

In the hurried closing days of the session, no bill was passed but the entire subject was referred to an unpaid commission which is directed to report not later than November 15, 1920, when it is probable that action will be taken by the Legislature then sitting in special session. These bills are printed in detail that all physicians may know just what has been done in the Legislative Committees. The subject has aroused very profound interest among the members of the Legislature, and many will seek advice from their physicians.

Correspondence.

WILLIAM T. G. MORTON, THE DISCOVERER AND REVEALER OF ANESTHESIA, AND HIS PLACE IN THE HALL OF FAME.

New York, June 10, 1920.

Mr. Editor:—

On April twenty-ninth you were good enough to publish my open letter entitled "No Physician or Surgeon as Yet in the Hall of Fame." In it I deplored the fact that no physician or surgeon has as yet been found worthy to be named among the great American immortals. I venture to suggest as the three most worthy names, William T. G. Morton, the discoverer of ether anesthesia, Ephraim McDowell, the first surgeon to perform a rational, deliberate, and successful ovariotomy, and J. Marion Sims, a great gynecologist who perfected the plastic operation in the vagina for the relief of vesical fistulae and invented the speculum. I stated that the nominations should be sent to the Senate of the New York University, University Heights, New York City, and that this should be done by every American physician who feels the great injustice done to the American medical profession by the apparent neglect or oversight of the previous electors.

I received many letters of approval of my humble efforts and of my choice of the three names mentioned. A few of my correspondents, however, objected to the name of William T. G. Morton as not being the discoverer of surgical anesthesia, and in the *Journal of the American Medical Association* of April 24, there appeared a strong letter signed by Dr. S. J. Lewis, according to which the priority of the discovery of sulphuric ether as an anaesthetic belongs to Dr. Crawford W. Long. It would lead to no result to recall here all the details of the old controversy between Morton, Long, and Jackson of half a century ago; the fact remains that before any one of these three men thought of the subject of anesthesia, means to subdue pain by all sorts of physical agents, such as various vapors, lotions, etc., were employed, and even hypnosis was resorted to by Esdaile and Ellictson (1790-1868) who operated hundreds of patients in the hypnotic state. Granted that Crawford W. Long discovered the anesthetic properties of sulphuric ether before Morton, he did not make known this method of producing sleep. Long did not prove to the medical profession that surgical anesthesia with the aid of sulphuric ether was "certain, safe and complete." These words were used by Dr. Henry J. Bigelow, a member of the staff which was present during the operation on that memorable day of Oct. 16, 1846.

Concerning the priority claims of Long and Jackson, Dr. J. Collins Warren, Mosely Professor of Surgery Emeritus, Harvard University, who wrote me only recently in reference to this matter, very pertinently says:

> "It is probable that Long performed three or four minor operations with primary anesthetic and then abandoned his claims. As Dr. Keen says, he is deserving of nothing but censure for not having appreciated the value of the agent. Regarding the claims of Jackson and his heirs, it may be briefly stated that the concensus of medical opinions in Boston at the time was and still is that his claim was not accepted."

The question resolves itself into what is meant by priority in the case of a great discovery. In Owen's "Homologies of the Skeleton," we read the following definition of priority: "He becomes the true discoverer who establishes the truth, and the sign of the truth is the general acceptance. Whoever, therefore, resumes the investigation of neglected or repudiated doctrine, elicits its true demonstration, and discovers and explains the nature of the errors that have led to its tacit or declared rejection, may certainly and confidently await the acknowledgments of his right in its discovery."

Francis Darwin in *Eugenics Review*, 1914, makes it still clearer when he says: "In science the credit goes to the man who convinces the world, not to the man to whom the idea first occurs." Morton convinced the world; the credit is his.

The late Sir William Osler, our greatest modern medical historian, to whom I referred in my first communication, considers Morton the inventor and revealer of anesthesia by sulphuric ether, and he speaks of him as a new "Promethus who gave a gift to the world as rich as that of fire, the greatest single gift ever made to suffering humanity." He pertinently asks in one of his latest essays on the subject (*Annals of Medical History*, Vol. i, No. 4):

> "Why do we not give the credit to Dioscorides, who described both general and local anesthesia, or to Pliny, or Apuleius or to Hietho, the Chinaman, who seems to be next in order, or to the inventor of the spongia somifera, or to Master Hazzee Montagna, in Boccaccio, or to any one of the score or more of men in the Middle Ages who are known to have operated on patients made insensible by drugs or vapors?"

In addition to the testimony of Osler, that to Morton and to no one else should be given the credit, I quote the following paragraph from a personal letter sent to Mr. E. L. Snell by Oliver Wendell Holmes on April 2, 1893 (*Century Illustrated Magazine*, August, 1894):

"Few persons have or had better reason than myself to assert the claims of Morton to the introduction of artificial anesthesia into surgical practice . . . This priceless gift to humanity went forth from the operating theatre of the Massachusetts General Hospital, and the man to whom the world owes it is Dr. William Thomas Green Morton."

As further evidence that to Morton should be given the credit, I will cite a paragraph from an address by Prof. William H. Welch of Baltimore, delivered on Oct. 16, 1908 (the sixty-second anniversary of Ether Day), as follows:

"The attendant circumstances were such as to make the operation, performed on October 16, 1846, in the surgical amphitheatre of this hospital, by John Collins Warren, upon the patient, Gilbert Abbott, placed in the sleep of ether anesthesia by William Morton, the decisive event from which date the first convincing public demonstration of surgical anesthesia, the continuous, orderly, historical promulgation to the world of the glad tidings of this conquest of pain. Had this demonstration or any subsequent one of like nature failed of success, it is improbable that we should have heard much of claims to the prior discovery of surgical anesthesia."

I hope this will suffice to settle the controversy for good and that this letter may be as widely published in the medical press as was my first one on this subject.

Dr. Charles H. Mayo, one of the electors of this year, writes me as follows: "It is a sad commentary that no medical man's work has been considered of sufficient importance to warrant a tablet in the Hall of Fame." Let there be no longer a division as to the nomination of Morton for the Hall of Fame. All those who are willing to be helpful in this matter may write to the Senate of the New York University or to any one of the 102 electors. The electors have until October first to make their decision. Fortunately, we have this year among the electors no less than four medical representatives—Major General Leonard Wood, Prof. William H. Welch, and Drs. William J. and Charles H. Mayo. I hope the good and great General will forgive me for still claiming him as one of ours. A list of the 102 electors will be sent to anyone addressing his request to the secretary of the Senate of the New York University.

We should have not only William T. G. Morton, but also the two other great Americans already mentioned who belong to our profession in the Hall of Fame—Ephraim MacDowell and J. Marion Sims. However, William T. G. Morton should be the first to be placed among America's great immortals.

It may not be universally known that Morton died virtually in poverty and heartbroken because he had received no recognition for his epoch-making discovery and daring experiment. I feel that I cannot close this ardent appeal for justice to "the inventor and revealer of anesthetic inhalation before whom in all time surgery was agony" better than by quoting one verse from "The Birth and Death of Pain," a poem by S. Weir Mitchell, M.D., read on October 16, 1896, at the Commemoration of the Fiftieth Anniversary of the First Public Demonstration of Surgical Anesthesia:

"How did we thank him? Ah! no joy-bells rang,
No peans greeted, and no poet sang,
No cannon thundered, from the guarded strand,
This mighty victory to a grateful land!
We took the gift, so humbly, simply given,
And, coldly selfish, left our debt to Heaven.
How shall we thank him? Hush! A gladder hour
Has struck for him, a wiser, juster power
Shall know full well how fitly to reward
The generous soul that found the world so hard."

DR. S. ADOLPHUS KNOPF.
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THE TRAINING OF NURSES.

St. Louis, Mo., June 7, 1920.

Mr. Editor:—

I have received a letter from Miss Mary C. Wheeler, R. N., part of which is as follows:

Dr. L. H. Burlingham,
Barnes Hospital, St. Louis, Mo.
My dear Dr. Burlingham:

The American Conference on Hospital Service appointed a committee on nursing at its meeting held March 3, 1920. The members of this committee present made a resolution to study the nursing problem as it exists both in the United States and Canada today.

A report from this committee is expected to be in the hands of the Secretary one month prior to the meeting to be held October 4, 1920, in Montreal.

You are a member of this committee. As your part of the investigation, will you write to the American College of Surgeons and the American Medical Association, asking for space in the journal which represents these organizations, also to the *Missouri State Medical Journal* and the BOSTON MEDICAL AND SURGICAL JOURNAL, in which you can invite members to write you in regard to the following points:

Their opinion of the value of the three-year course for nurses connected with hospitals, the two-year course for nurses connected with hospitals, the high school pre-nursing courses, the Red Cross extension courses, short courses and correspondence courses.

Are the principles laid down in the nursing education in these courses right or wrong? If right, how can it be improved so as to adequately meet the nursing need? If wrong, how should the training of the nurses be made right?

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What misuse are the graduates of these schools making of their training?

What, if any, is the nurse wastage during training?

What, if any, is the nurse wastage after finishing their course?

What are some of the reasons for the shortage of nurses today?

What suggestions can be made as to changes in the training to make it efficient and not lower the nursing standards?

Would you be willing that space be given this letter in your JOURNAL, with the request that all those interested write me their views on the subjects mentioned?

Everyone knows the difficulties in the nursing situation and it is hoped that this investigation may help in the solution of the problems.

Yours very truly,
L. H. BURLINGHAM, *Superintendent.*

RECENT DEATH.

DR. EDWARD HERMAN M. SNELL died in New York on June 7, 1920. He was born in Pennsylvania eighty-seven years ago. Dr. Snell was a graduate of the Gettysburg Theological Seminary, the Bellevue Medical college, and the University of Vienna. He was one of the seven physicians who organized the American Academy of Medicine, in 1876. For several years Dr. Snell practised in Europe, and was a delegate from the United States to the International Medical Congress in Europe in 1890 and 1894.

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We have furthermore determined that arsphenamine is 2½ *more toxic in the white rat than neoarsphenamine.* This gives neoarsphenamine a better therapeutic index than arsphenamine.

It is necessary to confirm these results by systematic and prolonged investigations on syphilis in man. For this purpose it is essential to compare the serologic results in 100 cases of secondary syphilis treated with arsphenamine alone with a similar number of cases treated with neoarsphenamine alone. These studies are under way and the results will be reported in due time.

On account of the fact that neoarsphenamine is better tolerated by patients than arsphenamine, we tentatively prefer it but we employ more frequent injections (at least twice a week), than has been the practice with arsphenamine.

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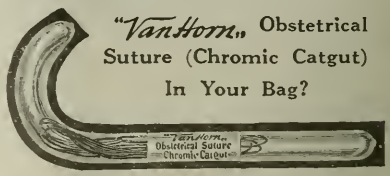

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